Commercial Recycling Collections Guide

A guide for local authorities to help determine, implement and optimise efficient and effective commercial recycling collection services, including examples of good practice, an overview of relevant legislation and evidence-based approaches to assessing and improving performance. Updated 2013/14.

Project code: BHC005-006

Last updated: March 2014
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We work with businesses, individuals and communities to help them reap the benefits of reducing waste, developing sustainable products and using resources in an efficient way.

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Written by: WRAP and Ricardo-AEA.

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Executive summary

According to a study commissioned by BIS (Department for Business Innovations and Skills) in 2011, the waste management industry employed 128,000 people and in 2010/11 generated a gross value added (GVA) of £7.5 billion, of which waste collection is estimated to have accounted for 27%. The report concludes that the industry is expected to enjoy positive growth during the next few years. In times of austerity, many local authorities have identified this and seized the opportunity to use revenue from providing commercial waste services to offset those for their residents. Between 2007 and 2012 the number of local authorities offering a commercial residual waste collection service rose from 55% to 68%. Driven by a number of factors including cost, regulations and demand there has been a shift from waste management to resource recovery. Between 2007 and 2012 the proportion of authorities that offered a commercial residual waste and a recycling collection service rose from 40% to 72% and this trend is expected to continue.

With today’s discerning business customer, it has never been more important to ensure that commercial waste and recycling services are designed and delivered with customer needs at the heart of all decisions. Services which are easy to use, flexible (in terms of frequency and containment), reliable, cost effective and provide environmental benefits are all important factors.

While local authorities will have a number of drivers for providing a commercial waste and recycling service, WRAP research shows that local authorities are likely to achieve a higher recycling rate:

- Where recycling charges are cheaper than disposal;
- When recycling services are provided flexibly;
  - where collections are made more than once a week; or
  - a larger number of materials are collected.

With a key driver for service provision being to generate income, having a full understanding of costs (as well as income) is critical and it is therefore highly recommended to ensure a robust accounting system and customer database is in place. Involvement of Finance Officers from the outset will assist with this process.

A well designed and delivered service will naturally retain customers and attract new ones, however, it is important to be proactive in sales and marketing in order to ensure a critical mass of customers for operational efficiency.

Monitoring a number of aspects of the service and making adjustments and improvements as necessary will help to ensure a healthy operational and financial performance, and that the service continues to meets the changing needs of customers.
Acknowledgements

WRAP wishes to thank all of the organisations and individuals who participated in the interviews that have informed this guide including:

Bristol University, Canterbury City Council, City of London Corporation, East Ayrshire Council, Exeter City Council, London Borough of Bexley, London Borough of Richmond, North London Waste Authority, Northumberland Council, Oxford City Council, Oxfordshire County Council, Peterborough City Council, Ribble Valley Borough Council, South Hams District Council, Cardiff Council, Warwick District Council, Westminster City Council and Alan Cook of HCW.
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### Glossary

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<th>Key term</th>
<th>Definition</th>
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<tr>
<td>Bring bank</td>
<td>A non-staffed site with one or more containers to which a business or householder can take a (typically quite limited) range of recycling, as opposed to having it collected from their premises.</td>
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<td>Co-collection</td>
<td>For the purpose of this guide the term ‘co-collection’ refers to the collection of household and commercial waste or household and commercial recyclables using the same vehicle.</td>
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<td>Commercial waste</td>
<td>Commercial waste comes from a property used for the purposes of trade or business, such as offices, shops, showrooms, pubs, clubs, restaurants, hotels, government and local authority offices, royal palaces, caravan and camping parks, self-catering accommodation used in the course of a business, general medical practitioners, markets, fairs, charity shops and places of worship. Waste collection authorities have a duty, if asked, to arrange for the collection of commercial waste from businesses in their area. The majority of commercial waste collected by local authorities is likely to be from Small and Medium Sized Enterprises (SMEs).</td>
</tr>
<tr>
<td>Composite hereditament</td>
<td>A property which is used for both domestic and commercial purposes e.g. shops with flats above them or a business which is adjoined/ contained within part of the owner’s dwelling.</td>
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<tr>
<td>Household waste</td>
<td>For the purpose of this guide, household waste or recycling is that which is collected from residential properties rather than at Household Waste &amp; Recycling Centres (HWRCs).</td>
</tr>
<tr>
<td>Household Waste Recycling Centre (HWRC)</td>
<td>A staffed site with one or more containers to which a business can take its waste and a range of recycling, as opposed to having it collected from its premises.</td>
</tr>
<tr>
<td>Industrial waste</td>
<td>Industrial waste means waste from: • factories; • premises used for the purposes of, or in connection with, the provision to the public of transport services by land, water or air; • supply to the public of gas, water or electricity or the provision of sewerage services; • provision to the public of postal or telecommunications services; • any mine or quarry; or • any premises used for agriculture within the meaning of the Agriculture Act 1947².</td>
</tr>
<tr>
<td>Kerbside collection</td>
<td>The collection of waste or recycling from the street (kerb) outside domestic properties or commercial premises.</td>
</tr>
<tr>
<td>Small &amp; Medium Sized Enterprise (SME)</td>
<td>According to the European Commission SMEs are: • Medium sized businesses with less than 250 staff, a turnover of less than €50 million, or a balance sheet total of less than €43 million;</td>
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<table>
<thead>
<tr>
<th>Key term</th>
<th>Definition</th>
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<td>Small businesses with less than 50 staff, a turnover of less than €10 million, or a balance sheet total of less than €10 million; and</td>
<td></td>
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<tr>
<td>Micro-businesses with less than 10 staff, a turnover of less than €2 million, or a balance sheet total of less than €2 million</td>
<td></td>
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1.0 Introduction

This guide provides information for local authorities (and their private and third sector partners) on the key steps involved in developing, managing, expanding and optimising a commercial recycling collection scheme. It is of use to those authorities that are considering implementing a new service as well as those who currently offer a service and are seeking to improve their service in terms of operational efficiency or expanding the service either through increased customer participation or the variety of materials collected.

The steps are provided in the logical sequence of planning, implementing and reviewing a service; however many of the decisions to be made will be co-dependent on other steps. It is therefore advisable to read the whole document in order to understand these co-dependencies before embarking on any major service related decisions. Most of the principles outlined apply to all materials, including food waste, but where there are differences, these are highlighted throughout the guide.

This guide is not prescriptive, and it is intended to enable the reader to make informed decisions and implement changes that will work in their own situation and circumstances. It has been written for local authorities across the UK (England, Northern Ireland, Scotland and Wales). Advice is provided specific to each nation where appropriate to ensure that local regulations and policies are followed. It is recommended however, that local authorities seek legal advice regarding their own circumstances and check with the relevant regulatory authority to ensure that positions have not changed since publication.

This guide does not cover the adaptation of Household Waste & Recycling Centres (HWRCs) or other municipal bring facilities to collect commercial wastes. This is available in another guide which can be found on the WRAP website along with other information that is relevant to the collection of commercial recycling:

http://www.wrap.org.uk/category/subject/business-collections

The guide follows a standard business planning cycle format of ‘plan - implement - review’, which is represented by the service cycle below:
Figure 1: Service planning cycle

- **Context**
  Developing the business case for collecting commercial recycling

- **Scoping your service**
  What is the scope of your service?

- **Service planning and delivery**
  How should your operations be configured?

- **Costs and income**
  What will you charge your customers?

- **Sales and marketing**
  How will you engage customers?

- **Monitoring and evaluation**
  How are you performing?
2.0 Context – Needs and barriers

This chapter sets the context and provides the drivers for implementing and running a commercial recycling collection service. By the end of this stage in the service planning process you will understand:

✓ What the drivers are for collecting commercial recycling;
✓ Which key pieces of legislation are pertinent to your services;
✓ What the barriers are for SMEs to recycle and how to design your service to overcome them; and
✓ What the scale of the market is.

2.1 Developing the business case – drivers for collecting commercial recycling

Whilst readers of this guide are likely to know what key drivers they have for initiating/improving a commercial recycling service, it may be beneficial to consider other drivers too. This may be helpful when writing a business case and can help inform the overall service. The most common drivers for collecting commercial recycling identified by local authorities across the UK are outlined below3.

Figure 2: Drivers for the introduction of a commercial recycling service

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3 Local authority business waste and recycling services surveys 2012,
2.1.1 Income and income protection
Local authorities are able to recover all the costs associated with providing a commercial waste/recycling service. In addition, under section 95 of the Local Government Act 2003[^4] an authority may set up a wholly council owned trading company to deliver commercial waste/recycling services. Offering a comprehensive recycling service will help protect income generated from residual waste customers who may demand recycling services as well and wish to use a single supplier. There are opportunities for authorities collecting dry recyclables from commercial customers to maximise income from the sale of these materials.

2.1.2 Avoiding costs and a thriving economy
Local authority strategies are likely to include economic aspirations and indicators which, in many cases, are linked to sustainable development. A thriving economy is very much linked with the profitability of its local businesses. With landfill tax and the cost of disposal rising, waste management is an increasing cost burden to small businesses, reducing their profits. They should be able to mitigate these costs through waste reduction and recycling strategies. In addition to this, another driver for a local authority to introduce commercial recycling services may be the desire to create or safeguard ‘green jobs’.

2.1.3 Reinforce household recycling and reputation
Providing a commercial recycling service could mean a local authority is seen to be leading by example. Enabling and encouraging businesses and their staff to recycle at work will reinforce the message that recycling is part of daily life which may, in turn, help increase household recycling rates.

2.1.4 Reduce mis-use of household services
A 2010 Defra survey[^5] revealed that 41%[^6] of English micro businesses use household services to dispose of and recycle their waste. This is through the use of both domestic collection services and HWRCs. Such practices, especially for residual commercial wastes, place a burden on local authorities where there is no cost recovery from businesses.

2.1.5 Demand for the service.
The Federation of Small Businesses reports that 95% of small businesses would recycle more if they had access to better facilities[^7]. Providing a commercial recycling service that is accessible and provides value for money would support local SMEs.

[^5]: Recycling activities in SMEs – a survey, Defra 2010
[^7]: FSB, ‘Voice of Small Businesses’ Index November 2010
2.1.6 Optimising resources

It may be the case that many existing residual waste customers would be willing and able to adopt recycling services that are aligned with household configurations (or some variant of them) if the cost, service and environmental benefits of this approach could be demonstrated. The potential benefits to councils of introducing co-collection recycling schemes may include:

- Reduced operational costs by maximising existing vehicle capacity;
- Increased revenue generated;
- Positive effect on ‘municipal’ recycling performance; and
- Improved customer satisfaction with council waste collection services in general.

2.1.7 Policy in Scotland and Wales

Scotland

Scottish local authorities are encouraged to help businesses improve their recycling through the Scottish Government’s Zero Waste Plan, published in 2010. It sets out the Scottish Government’s vision for achieving a zero waste society, “where waste is seen as a valuable resource, valuable materials are not disposed of in landfills, and most waste is sorted for recycling, leaving only limited amounts to be treated” (Scottish Government 2010).

The Plan has set an overall target for 70% recycling/composting and preparing for re-use of all waste produced in Scotland (not just that which is managed by local authorities) and that no more than 5% of all waste is to go to landfill by 2025. For local authorities, this means they will need to take action to increase the quantity and quality of materials which they collect for recycling and composting from businesses.

SEPA’s Waste Data Strategy\(^8\) for Scotland identifies an improvement in the quality, quantity and detail of Commercial and Industrial (C&I) waste arisings, and waste recycled by economic sector as a priority outcome to be addressed. A review of the Waste Data Strategy in 2014 will assess progress.

Wales

The Waste (Wales) Measure 2010 was passed by the National Assembly on 02 November 2010 and received Royal Approval on 15 December 2010, giving the Welsh Government powers to restrict, or even ban certain wastes from landfill in Wales. The Measure:

- Enacts a provision about the destination of proceeds from charges for single use carrier bags;
- Makes provision for targets to be met by local authorities in relation to municipal waste;
- Makes provision for prohibiting or otherwise regulating the deposit of waste in a landfill; and
- Provides for site waste management plans for works involving construction or demolition and for connected purposes.

The measure also sets out the recycling targets for municipal solid waste in Wales which are 52% by 2012-13 and 70% by 2024-25.

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\(^8\) Waste Data Strategy is for all of Scotland’s waste data. It sets out a vision to produce high quality, robust waste data that will help society get a better understanding of how it manages its waste and resources. To achieve this vision, the strategy prioritises the improvements in data required and describes these as outcomes.
An Environment Bill⁹ is proposed which will require separate collections of C&I paper, card, plastics, metals, food and wood. In addition, there would be landfill and incineration/EFW bans for these materials (uncontaminated).

In Wales, the overarching waste strategy document - Towards Zero Waste – provides a long term high level strategic framework, and describes the social, economic and environmental outcomes that resource efficiency and waste management will achieve and contribute towards in a sustainable future. It also details high level principles, policies and targets.

The strategy document is underpinned by a series of implementation or Sector Plans, including the Industrial and Commercial Sector Plan, describing the role and actions of each sector, the Welsh Government and others in delivering the outcomes, targets and policies in Towards Zero Waste.

Towards Zero Waste proposes a general waste reduction target of 1.4% every year to 2050 based on 2006/7 baseline for industrial waste, and 1.2% every year to 2050 based on 2006/7 baseline for commercial waste. The Welsh Government has decided to include “preparation for reuse” (that includes the composting and anaerobic digestion of waste) as counting towards the 2025 70% recycling targets set for industrial and commercial waste. Following consultation on the Collection, Infrastructure and Markets Sector Plan (that looks at what happens to the waste once it has been put out for collection and how Wales deals with its waste without sending it to landfill) the Welsh Government has set a cap on landfilling of industrial and commercial waste in Wales of 10% of waste produced in 2019-20, and just 5% in 2024-25.

In Wales, the National Strategic Indicators measuring the performance of local authorities in waste and recycling management are:

- The percentage of municipal waste (from household and non-household sources) collected by local authorities sent to landfill;
- The percentage of municipal waste (from household and non-household sources) collected by local authorities and prepared for reuse and/or recycled, including source segregated bio-wastes that are composted or treated biologically in another way; and
- The percentage of reported fly tipping incidents cleared within 5 working days.

2.1.8 Planning policy
Another policy area where local authorities can influence the improvement in standards of commercial waste management and levels of recycling and resource efficiency is planning. All planning applications for change of use or new developments should include adequate provision for waste management e.g. storage capacity for residual waste, recycling and food waste. This will enable any businesses or residents within the development to recycle in the future without potential issues of space.

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⁹ http://wales.gov.uk/topics/environmentcountryside/consmanagement/natural-resources/environment-bill/?lang=en

Westminster City Council provides waste and recycling storage guidance to architects to help plan commercial premises, including typical space requirements: http://www.westminster.gov.uk/publications/publications_detail.cfm?ID=1121
2.1.9 Legislation

Legislation is also a driver for the provision of C&I waste services and the segregation of materials for recycling. An overview of key relevant UK legislation is presented in the following table. Some of the key pieces of legislation are explained in appendix 1.

Table 1: Overview of relevant UK legislation

<table>
<thead>
<tr>
<th>Legislation</th>
<th>England</th>
<th>Wales</th>
<th>Scotland</th>
<th>Northern Ireland</th>
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<td>Environmental Protection Act 1990</td>
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<td>Clean Neighbourhoods and Environment Act 2005</td>
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<td>Animal By Products Regulations 2005</td>
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<td>Public Supply Contracts Regulations 1995</td>
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<tr>
<td>Local Government Act 1999 - Part 1, Best Value</td>
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<td>Health &amp; Safety at Work Act 1974</td>
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<td>Environmental Permitting (England and Wales) Regulations 2010</td>
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<td>Waste Regulations (England and Wales) 2011</td>
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<td>The Waste (England and Wales) (Amendment) Regulations 2012</td>
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<td>Landfill (England and Wales) Regulations 2002</td>
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<td>Controlled Waste Regulations (England and Wales) 2012</td>
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<td>Waste (Miscellaneous Provisions) (Wales) Regulations 2011</td>
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<td>Waste (Wales) Measure 2010</td>
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<td>Waste Regulations (Scotland) 2012</td>
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<td>Special Waste Regulations 2012</td>
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<td>Waste Information (Scotland) Regulations 2010</td>
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<td>Waste Management Licensing (Scotland) 2011</td>
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<td>Waste Electrical and Electronic Equipment Regulations 2006</td>
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<td>The Waste Contaminated Land (Northern Ireland) Order 1997</td>
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<td>The Waste Regulations (Northern Ireland) 2011</td>
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<td>The Hazardous Waste Regulations (Northern Ireland) 2005</td>
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<td>Animal By-Products (Northern Ireland) Regulations 2003</td>
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2.2 Understanding customers’ needs and barriers to recycling

Understanding both your customers’ needs and their barriers to implementing a recycling scheme is a high priority in order to develop a service that meets their requirements. This information should also help inform the sales and marketing strategy for your service.

2.2.1 Barriers for SMEs

Key barriers to SME recycling are outlined below, along with potential measures to overcome them.

Table 2: Understanding and overcoming barriers to SME recycling

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Measures to overcome</th>
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<tbody>
<tr>
<td><strong>Low volumes of materials</strong></td>
<td>▪ Collect from a high number of businesses in as dense an area as possible or encourage a number of businesses to collaborate to purchase the service together.</td>
</tr>
<tr>
<td>▪ SMEs can generate relatively low volumes of recyclable materials and, therefore, it can be difficult to collect the materials on a commercial basis</td>
<td>▪ Where appropriate, co-collect household and commercial materials for maximum collection efficiency</td>
</tr>
<tr>
<td>▪ Low volumes, or the perception of producing low volumes, were cited as the key reason for SMEs not recycling in Defra’s 2010 study of Recycling Activities in SMEs</td>
<td>▪ Conduct waste audits to determine actual volumes. N.B. Defra’s 2010 study of Recycling Activities in SMEs questions whether low volumes are an actual barrier or whether low volumes are a perception&lt;sup&gt;10&lt;/sup&gt;</td>
</tr>
<tr>
<td>▪ If the data is available, it may be useful to show the collective impact of the majority of SMEs within a certain area recycling i.e. while individual quantities of material may be low, collectively they may be high</td>
<td>▪ Consider commercial recycling bring/drop-off centres</td>
</tr>
<tr>
<td><strong>Cost and Volumes</strong></td>
<td>▪ As landfill tax escalates, the cost difference between landfill waste and recycling will grow, making recycling increasingly financially attractive</td>
</tr>
<tr>
<td>▪ Because volumes can be relatively small, it can be difficult to demonstrate cost savings</td>
<td>▪ Work with businesses individually to work out</td>
</tr>
</tbody>
</table>

According to SMEs in the 2010 DEFRA survey, the top 5 drivers for a business to implement a recycling scheme include:
- Company’s environmental policy;
- Need to reduce carbon footprint;
- Government legislation;
- Cost (less money spent on residual waste collection); and
- Environmental reasons.

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<sup>10</sup> Recycling Activities in SMEs, Defra survey, 2010 page 33
<table>
<thead>
<tr>
<th><strong>Barriers</strong></th>
<th><strong>Measures to overcome</strong></th>
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<tr>
<td></td>
<td>their waste management needs with the aim of reducing residual waste collection and introducing recycling</td>
</tr>
<tr>
<td></td>
<td>■ Highlight the environmental and social benefits of recycling</td>
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<tr>
<td>■ Lack of service provision (this may be particularly pertinent to rural areas)</td>
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<tr>
<td></td>
<td>■ Survey businesses to understand demand and supply</td>
</tr>
<tr>
<td></td>
<td>■ Develop services where appropriate</td>
</tr>
<tr>
<td></td>
<td>■ Better promotion of services</td>
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<td></td>
<td>■ Develop services where appropriate</td>
</tr>
<tr>
<td></td>
<td>■ Better promotion of services</td>
</tr>
<tr>
<td></td>
<td>■ Engage with key decision-maker</td>
</tr>
<tr>
<td></td>
<td>■ Encourage use of ‘green champions’</td>
</tr>
<tr>
<td></td>
<td>■ Provide training/promotional materials for internal use e.g. bin signage and posters</td>
</tr>
<tr>
<td></td>
<td>■ Ensure the service is as user friendly as possible</td>
</tr>
<tr>
<td></td>
<td>■ Have a ‘walk round’ the business to identify where internal containers could be sited</td>
</tr>
<tr>
<td></td>
<td>■ One to one engagement with businesses so they understand the pricing structure and how it compares with residual waste and why</td>
</tr>
<tr>
<td></td>
<td>■ Provide case studies of businesses that are saving money by recycling</td>
</tr>
<tr>
<td></td>
<td>■ Reduce container capacity/frequency of collection of residual waste</td>
</tr>
<tr>
<td></td>
<td>■ Introduce commercial waste/recycling to HWRCs/transfer stations where appropriate</td>
</tr>
<tr>
<td></td>
<td>■ Carefully explain the issues to mis-users – many</td>
</tr>
<tr>
<td>Barriers</td>
<td>Measures to overcome</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>businesses - use household services, both knowingly and unknowingly. If they are using this service 'for free' why would they pay for a service?</td>
<td>of them will just be trying to do 'the right thing'.</td>
</tr>
<tr>
<td>■ SMEs that operate from their personal residence are able to dispose of waste/material within their household collection service. If the quantities of material produced are greater than their household containers the authority can charge for additional capacity under the <strong>Controlled Waste (England and Wales) Regulations 2012</strong>.</td>
<td>■ Inform businesses of waste legislation – Duty of Care and Pre-treatment</td>
</tr>
<tr>
<td>■ Introduce permit schemes at HWRCs to reduce mis-use</td>
<td>■ Ask collection crews to be vigilant and report back suspected cases</td>
</tr>
<tr>
<td>■ Inform trading standards and other officers who have contact with businesses e.g. Environmental Health about Duty of Care etc. and ask them to report back suspected cases</td>
<td>■ Inform trading standards and other officers who have contact with businesses e.g. Environmental Health about Duty of Care etc. and ask them to report back suspected cases</td>
</tr>
<tr>
<td><strong>Tight cash flow</strong></td>
<td></td>
</tr>
<tr>
<td>■ Cash flow can be problematic for businesses. Businesses may not want to procure any new services, particularly if long term contracts are required</td>
<td>■ Payment monthly by direct debit</td>
</tr>
<tr>
<td>■ ‘Pre-paid’ sacks</td>
<td>■ Shorter contract lengths e.g. 6 months</td>
</tr>
<tr>
<td>■ Demonstrate potential cost savings through one-to-one support and case studies</td>
<td>■ Demonstrate potential cost savings through one-to-one support and case studies</td>
</tr>
<tr>
<td><strong>Cost/time</strong></td>
<td></td>
</tr>
<tr>
<td>■ Perception that any cost benefits may be outweighed by the administrative time in setting up new arrangements when business is focussed on surviving and competing</td>
<td>■ Payment monthly by direct debit</td>
</tr>
<tr>
<td>■ One-to-one support</td>
<td>■ Provide training materials/sessions</td>
</tr>
<tr>
<td>■ Ensure service is easy and convenient</td>
<td>■ Provide training materials/sessions</td>
</tr>
<tr>
<td><strong>Space</strong></td>
<td></td>
</tr>
<tr>
<td>■ SMEs may lack space to collect and store materials for recycling. This can be a particular issue in urban areas</td>
<td>■ Provide flexibility in terms of containment options and/or more frequent collections</td>
</tr>
<tr>
<td><strong>Contamination/staff unwilling</strong></td>
<td></td>
</tr>
<tr>
<td>■ Expectations from business owners/managers that staff will not be keen to participate in recycling schemes and that it will be difficult to ensure segregation of materials occurs</td>
<td>■ Provide training materials/sessions</td>
</tr>
<tr>
<td>■ Encourage use of ‘green champions’ (in larger businesses)</td>
<td>■ Provide case studies of successful SMEs</td>
</tr>
<tr>
<td>■ Provide case studies of successful SMEs</td>
<td>■ Highlight social and environmental benefits of recycling as well as cost savings</td>
</tr>
<tr>
<td>■ Provide internal containers</td>
<td>■ Provide internal containers</td>
</tr>
<tr>
<td><strong>Contracts</strong></td>
<td></td>
</tr>
<tr>
<td>■ Businesses to speak to contractors to find out</td>
<td></td>
</tr>
<tr>
<td>Barriers</td>
<td>Measures to overcome</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Businesses believe that they are ‘locked’ into a contract which they are unable to change to introduce recycling and/or change residual collections | what they can/can’t change  
Businesses to check their contracts, including when renewal dates are coming up as well as ensuring that they compare total costs e.g. private companies may include separate charges for Duty of Care |
| Centrally managed contracts                                            | Ensure contact with key decision-maker  
Contact head office  
Inform businesses about Pre-treatment (Landfill regulations 2002) and Waste Regulations (2011/12) requirements  
Contact the service provider and ask them to consider sub-contracting |
| End use doubts                                                        | Provide simple audit information  
Inform people of end-of-use  
Invite businesses to tour of MRF/sorting facilities (where possible)  
Feedback from MRFs on input/output/contamination/ rejection levels and recycling rates |
| Hygiene and odour concerns                                             | Clear communications and support  
Use of liners  
Frequent collections |
| Need for confidentiality                                               | Provide information on security  
Provide service for shredded paper |

2.3 Barriers for SMEs – food waste

A key barrier for some SMEs taking up food waste collection services is that they do not produce enough volumes of food waste to reduce their residual waste collection requirements and therefore make the addition of a food waste collection service cost neutral. The issue is highlighted through the figures below. Figure 4 highlights that the proportion of food waste in the hospitality sector is high in terms of weight (41%), however, by volume this equates to less than 10%. This means that the volume of residual waste may not be reduced enough to warrant reducing the residual waste bin size or reducing the frequency of collection. Because the vast majority of service providers charge for waste/recycling based on volumes, not weight, it means that separate food
waste collections would be an additional cost. Typically, WRAP research\(^\text{11}\) shows that businesses need to be producing more than 40 kg of food waste per week for a collection to be viable.

**Figure 3**: Typical hospitality business’s residual waste bin - composition vs. weight

Other barriers include:
- Hygiene and smell concerns – therefore there may be a preference for collections to be early in the week in order to remove food waste generated over the weekend
- Lack of storage space
- ‘Hassle’ of additional segregation

\(^{11}\) Food waste collections to SMEs – Developing the Business Case
3.0 Scoping your service

This chapter will help you to determine what the scope of your service will be. By the end of this chapter you will understand:

- What the benefits are of setting up a working group for your service development;
- The scale of the UK waste market, the composition of waste arisings, how much is being recycled and what services are currently provided by local authorities;
- How to find out about and understand your customers’ needs;
- What the opportunities and demands are for (new) services;
- The types of materials available for collection and the sectors they arise in; and
- The scope (size) of your service and the materials it will collect.

3.1 Develop a working group

In the initial stages of scoping your service it may be useful to establish a working group. Benefits include pooling resources, knowledge and ideas which should result in better planning and reduce the risk of issues and delays arising later in the process, as well as ensuring buy-in across the organisation. This group could include councillors, commercial and household waste collection and disposal staff, and representatives from communications, call centre, finance, health and safety, and enforcement teams (such as trading standards). At later stages, it is recommended to also consult with local businesses.

There should be a real benefit in involving a finance officer in the early stages to help to ensure that income from service charges and sales of recyclable materials along with savings through avoided disposal and landfill tax costs are balanced against the costs of providing the recycling service and potential loss in revenue from residual waste collection services.

Once you have a working group established you can use it to start to develop aims and objectives for your service. These can be refined over the course of your service scoping exercise as evidence is used to inform your decisions.

3.2 Optimum starting position

You may be in a good starting position to commence a recycling service if you already offer a residual waste service. Key reasons for this are:

- SMEs prefer to have their waste services delivered by one service provider as it reduces the perceived ‘hassle’ of setting up another service contract and keeps the number of suppliers to a minimum;
- Selling a recycling service will be easier if costs can be kept neutral for the SME. This may be easier to achieve if both the recycling and residual waste services are provided by the same operator;
- There will be an existing customer base to sell the service to;
- The necessary back-office resources and processes will be in place e.g. invoicing system etc.; and
There is likely to be some resource for marketing and promoting the new service.

In addition to the above, if you are looking to introduce a food waste recycling service, then you may be in an optimum position if you are already providing residual waste and dry recycling services as well as a household food waste collection service. This is because you will have access to a waste treatment facility as well as vehicles which may have spare capacity.

3.3 Scale of the UK waste market and waste arisings

According to a study commissioned by BIS in 2011, the waste management industry employed 128,000 people and in 2010/11 generated a gross value added (GVA) of £7.5 billion, of which waste collection is estimated to account for 27%.

Defra undertook a national survey of commercial waste arisings in England\(^\text{12}\) in 2009\(^\text{13}\). The survey data provides an insight into the scale of commercial waste arisings produced by business sectors and sizes. Similar surveys have been conducted in Wales (2007\(^\text{14}\)), Scotland (2006\(^\text{15}\)) and in Northern Ireland (2009\(^\text{16}\)).

Focussing on England, Defra estimated that 47.9 million tonnes of C\&I waste was produced in 2009\(^\text{17}\), with the commercial sector accounting for 23.8 million tonnes (total waste arisings, of which 52.8% was sent for reuse or recycling).

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\(^{12}\) Surveys also suggest that an additional 7.6 and 3.6 million tonnes of C\&I waste was produced in Scotland (2006 data) and Wales (2007 data)


\(^{15}\) http://www.sepa.org.uk/waste/waste_data/waste_data_reports/business_waste_survey.aspx

\(^{16}\) http://www.doeni.gov.uk/nia/northern_ireland_ci_waste_estimates_2009_v4_2.pdf

Table 3: C&I waste by broad business sector, England, 2009\textsuperscript{18}

<table>
<thead>
<tr>
<th>Sector</th>
<th>Waste (000 tonnes)</th>
<th>Sector recycling &amp; reuse rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food, drink &amp; tobacco</td>
<td>4,667</td>
<td>51.2</td>
</tr>
<tr>
<td>Textiles / wood / paper / publishing</td>
<td>3,450</td>
<td>58.9</td>
</tr>
<tr>
<td>Power &amp; utilities</td>
<td>5,720</td>
<td>46.3</td>
</tr>
<tr>
<td>Chemicals / non-metallic minerals manufacturing</td>
<td>3,847</td>
<td>42.0</td>
</tr>
<tr>
<td>Metal manufacturing</td>
<td>4,235</td>
<td>53.1</td>
</tr>
<tr>
<td>Machinery &amp; equipment (other manufacturing)</td>
<td>2,164</td>
<td>65.5</td>
</tr>
<tr>
<td><strong>Subtotal – Industrial</strong></td>
<td><strong>24,084</strong></td>
<td><strong>51.3</strong></td>
</tr>
<tr>
<td>Retail &amp; wholesale</td>
<td>9,212</td>
<td>59.6</td>
</tr>
<tr>
<td>Hotels &amp; catering</td>
<td>2,671</td>
<td>45.0</td>
</tr>
<tr>
<td>Public administration &amp; social work</td>
<td>2,890</td>
<td>29.1</td>
</tr>
<tr>
<td>Education</td>
<td>1,481</td>
<td>34.4</td>
</tr>
<tr>
<td>Transport &amp; storage</td>
<td>2,189</td>
<td>71.0</td>
</tr>
<tr>
<td>Other services</td>
<td>5,402</td>
<td>55.7</td>
</tr>
<tr>
<td><strong>Subtotal – Commercial</strong></td>
<td><strong>23,844</strong></td>
<td><strong>52.8</strong></td>
</tr>
<tr>
<td><strong>TOTAL - Commercial and Industrial</strong></td>
<td><strong>47,928</strong></td>
<td><strong>52.1</strong></td>
</tr>
</tbody>
</table>

The figures show that the retail and wholesale sector produces the greatest amount of commercial waste (9.2 million tonnes). When looking at the arisings by material type, non-metallic and mixed ordinary wastes are the most significant materials (see table 5 below for definitions).

Table 4: C&I waste arisings by material type, England, 2009

<table>
<thead>
<tr>
<th>Material type</th>
<th>Summary of wastes included</th>
<th>Waste 2009 (000 tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animal and vegetable wastes</td>
<td>Food, manure, other animal and vegetable wastes</td>
<td>3,762</td>
</tr>
<tr>
<td>Chemical wastes</td>
<td>Solvents, acids/alkalis, used oil, catalysts, wastes from chemical preparation, residues and sludges</td>
<td>5,285</td>
</tr>
<tr>
<td>Common sludges</td>
<td>Sludges (common) and dredging wastes</td>
<td>896</td>
</tr>
<tr>
<td>Discarded equipment</td>
<td>End of life vehicles (ELVs), batteries, waste electronics (WEEE) other discarded equipment</td>
<td>759</td>
</tr>
<tr>
<td>Healthcare wastes</td>
<td>Healthcare wastes</td>
<td>1,855</td>
</tr>
<tr>
<td>Metallic wastes</td>
<td>Metallic wastes</td>
<td>2,613</td>
</tr>
<tr>
<td>Mineral wastes</td>
<td>Combustion residues, contaminated soils, solidified mineral wastes, other mineral wastes</td>
<td>8,896</td>
</tr>
<tr>
<td>Mixed (ordinary) wastes</td>
<td>Household, undifferentiated wastes and sorting residues</td>
<td>12,303</td>
</tr>
<tr>
<td>Non-metallic wastes</td>
<td>Glass, paper &amp; card, rubber, plastic, wood, textiles</td>
<td>11,554</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>47,928</strong></td>
</tr>
</tbody>
</table>

Figure 5 below shows that small enterprises, with between 0 and 49 employees, produced 16.6 million tonnes of C&I waste in England, in 2009, or 34 per cent of total C&I waste.

A survey commissioned by Defra in 2009 reports that 67% of businesses had their recycling collected.

Recycling Activities by SMEs, 2009

The Federation of Small Businesses reports that 95% of small businesses would recycle more if they had access to better facilities.

3.3.1 Local authority commercial waste/recycling collections

Commercial recycling collections are increasing across the UK with more local authorities considering the benefits of either implementing a new service or expanding an existing one. In 2012 WRAP carried out a comprehensive survey of local authorities across the UK to understand where, why and how local authorities provide commercial waste and recycling services. Survey results for each of the nations are available here: http://www.wrap.org.uk/content/local-authority-survey-business-waste-collections.

In 2012 approximately 68% of local authorities in England offer a residual waste collection and 49% provide a recycling service to commercial premises.

Wales, Scotland and Northern Ireland all have very high proportions of local authorities offering commercial waste services. In 2012 Wales and Northern Ireland all authorities provide a residual waste collection and in Scotland, 31 out of 32 do. With regards commercial recycling services the proportions are 86% in Wales, 84% in Scotland and 62% in Northern Ireland.

Of the authorities delivering a commercial recycling service the range of materials collected varies. The table below shows the types of materials collected for recycling by UK local authorities. The most common materials are paper, card, cans and glass.
Table 5: Materials collected for recycling by UK local authorities offering a commercial recycling collection service, 2011/12¹⁹

<table>
<thead>
<tr>
<th>Material</th>
<th>England</th>
<th>Wales</th>
<th>Scotland</th>
<th>Northern Ireland</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper</td>
<td>94%</td>
<td>89%</td>
<td>93%</td>
<td>94%</td>
<td>94%</td>
</tr>
<tr>
<td>Cardboard</td>
<td>97%</td>
<td>79%</td>
<td>85%</td>
<td>81%</td>
<td>93%</td>
</tr>
<tr>
<td>Cans</td>
<td>72%</td>
<td>89%</td>
<td>85%</td>
<td>63%</td>
<td>75%</td>
</tr>
<tr>
<td>Other metals</td>
<td>17%</td>
<td>32%</td>
<td>4%</td>
<td>38%</td>
<td>18%</td>
</tr>
<tr>
<td>Mixed plastic (pots, tubs, trays and bottles)</td>
<td>43%</td>
<td>58%</td>
<td>37%</td>
<td>38%</td>
<td>43%</td>
</tr>
<tr>
<td>Plastic bottles</td>
<td>39%</td>
<td>47%</td>
<td>52%</td>
<td>50%</td>
<td>42%</td>
</tr>
<tr>
<td>Mixed glass</td>
<td>63%</td>
<td>74%</td>
<td>33%</td>
<td>44%</td>
<td>59%</td>
</tr>
<tr>
<td>Clear glass</td>
<td>15%</td>
<td>5%</td>
<td>48%</td>
<td>6%</td>
<td>18%</td>
</tr>
<tr>
<td>Green glass</td>
<td>15%</td>
<td>5%</td>
<td>48%</td>
<td>6%</td>
<td>18%</td>
</tr>
<tr>
<td>Brown glass</td>
<td>15%</td>
<td>5%</td>
<td>48%</td>
<td>6%</td>
<td>18%</td>
</tr>
<tr>
<td>Textiles</td>
<td>6%</td>
<td>5%</td>
<td>7%</td>
<td>13%</td>
<td>6%</td>
</tr>
<tr>
<td>Food waste</td>
<td>9%</td>
<td>58%</td>
<td>11%</td>
<td>25%</td>
<td>15%</td>
</tr>
<tr>
<td>Green waste</td>
<td>10%</td>
<td>21%</td>
<td>19%</td>
<td>31%</td>
<td>13%</td>
</tr>
<tr>
<td>Soil</td>
<td>2%</td>
<td>0%</td>
<td>0%</td>
<td>6%</td>
<td>2%</td>
</tr>
<tr>
<td>Vegetable oil</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Batteries</td>
<td>3%</td>
<td>0%</td>
<td>4%</td>
<td>0%</td>
<td>2%</td>
</tr>
<tr>
<td>WEEE</td>
<td>4%</td>
<td>5%</td>
<td>0%</td>
<td>13%</td>
<td>4%</td>
</tr>
<tr>
<td>Bulky items</td>
<td>6%</td>
<td>16%</td>
<td>0%</td>
<td>0%</td>
<td>6%</td>
</tr>
<tr>
<td>Wood</td>
<td>5%</td>
<td>5%</td>
<td>0%</td>
<td>6%</td>
<td>4%</td>
</tr>
<tr>
<td>Hardcore</td>
<td>3%</td>
<td>0%</td>
<td>0%</td>
<td>6%</td>
<td>3%</td>
</tr>
</tbody>
</table>

3.4 Your local market - understanding demand and surveying businesses

Understanding your local market (and critically whether there is a market for you to enter) is a key step in the service scoping process. You will need to understand:

- How many businesses are located within your area;
- What type of businesses they are;
- What type of waste they produce;
- How much waste they produce;
- What they are currently doing with their waste/recycling;
- How much they are paying for waste/recycling services;
- What services and information they need or want;
- What services are being provided by other operators and any gaps that may exist; and
- The potential total local demand.

You will need to undertake research to fully understand your local market. This could be done by conducting a survey of local businesses. Depending on the information required and resources available, surveys could be conducted by letter, telephone, email, or face-to-face interviews.

3.5 Material type

When deciding what materials to collect, you will need to consider the following:

- The regulations regarding the separate collection of recyclables and how this will be met;
- What material streams originate from local businesses;
- What demand there is to recycle these materials;
- If demand is currently being met;
- How much material is available;
- Infrastructure and outlet constraints and issues; and
- Potential revenue from the sale of the material (as appropriate).

Gaining a local understanding will be important and this can be achieved by undertaking surveys, waste analyses and audits.

* Numbers may not add to 100% as multiple answers could be given.
3.6 Understanding business types and their wastes

3.6.1 Surveys, waste analyses and audits
Waste compositional analysis and waste audits can provide accurate and detailed information about the nature and quantities of waste and recyclable material available.

Waste compositional analysis identifies the content and quantity of waste by material. Waste analyses can be undertaken by specialist companies, waste contractors, or it may be possible for an authority to undertake the work themselves so long as suitably qualified/trained personnel and adequate facilities are available. It would normally involve analysing a sample of waste e.g. a collection round.

Waste audits can be carried out at the single business level; however, if the goal is purely to identify overall types and quantities of waste generated, then this is not a cost effective approach. The benefit of a single waste audit is to the business waste producer to better understand its waste streams in order to help prevent waste and recycle most effectively. This could be a service offered - either charged for, or as a value added service.

On a much simpler scale, another option would be for questionnaire responses to be augmented by visits to premises to look at waste presented prior to collection, although the level of accuracy will be reduced.

Readers may find it useful to read WRAP’s guidance on sampling of household waste where the methodologies are transferrable. http://www.wrap.org.uk/content/monitoring-and-evaluation-guidance-chapter-3-sampling

3.6.2 Compositional analysis
Business waste compositional analysis is undertaken by a number of organisations, including local authorities, and reveals trends in the types of wastes generated by different sectors. As well as assisting with the decision about which materials to collect, it can also be useful when deciding how to promote appropriate services to different businesses.

The data in the table below has been extracted from a WRAP study of compositional analysis of commercial waste collected by local authorities in Wales\(^20\). Not only does it highlight the proportion (by weight) of materials from the different sectors it also shows that by weight, food, paper and cardboard make up the largest proportion of waste in this case. ‘Other plastic’ includes plastic film and ‘other organics’ includes waste vegetable oil.

Understanding business types will help you to target different material streams and will help your staff members to focus their engagement with different business types during the sales and marketing phase of your service development.

There are many benefits to collecting a range of materials from businesses including:

- Increasing recycling rates and diverting waste from disposal
- Maximising income from the sale of materials
- Reinforcing household messages – when people are able to recycle the same materials at work as at home
- Meeting customer demand and improving satisfaction rates with services.

Some materials may be best left to **specialist collectors** and it is useful to establish who these local service providers might be. Where there are sufficiently concentrated clusters of producers of individual materials in an authority’s area, there may be considerable merit in an authority actively facilitating the setting-up of arrangements between specialist companies and local businesses.

It is generally desirable to have a **mix of businesses** on a collection round. An established contract with a larger business may mean that collections from smaller businesses in the surrounding area are more viable as the bulk of the costs incurred are covered in the income from the main commercial client. This enables spare capacity to be used to increase coverage at no real extra cost.

Businesses that are part of a chain or group can be attractive potential customers but national contracts are often awarded to a single company. However, some national or regional waste management companies may subcontract collection services locally. It is therefore worth contacting them to see if there are any **sub-contracting opportunities** i.e. a private waste management company will collect WEEE and bulky waste from their valued customers. The service is offered as an ad-hoc collection and an officer provides an individual quote to the customer based on travel time, labour and disposal costs.
company sub-contracting business to a local authority which may be a more cost effective option for them as well as being beneficial to the authority’s service.

3.7 Material quantities

There is significant variation in the quantity of waste produced by businesses. WRAP studies have found that this variation exists across all sectors and sizes of businesses. For example, a business of the same size and in the same sector as another may produce twice the amount of waste.

Exeter City Council provides waste collections to just over 1,000 businesses and recycling services to around 450 businesses within the city boundaries. Collections are provided for paper, cardboard, mixed plastics (including film) and cans/tins. The charges are based on collections of 2 or 4 materials. All materials must be presented separately - paper, plastics and cans/tins in separate sacks and cardboard bound by tape. The provision of sacks and tape are included in the charge. 75% of the recyclables collected is cardboard, 20% paper and 5% plastics and tins/cans. The majority of customers have one collection per week but, if they produce more than 10 bags and approximately 20 inches of cardboard (in thickness), then they have the option to sign up to additional collections.

Customers’ segregating their materials in this way means the authority is able to keep sorting costs down, maximise income and provide a cost effective service for the customer.

The tape has the council logo on it which visually/physically separates it from other private sector collection and helps promote the service the council offers.

Defra’s survey into commercial and industrial waste arisings (2009) provides a starting point. Table 7 below provides a breakdown of waste arisings per business size and sector. On the basis of the data collated, estimates of the average tonnages generated by the varying business types / sizes can be derived.
Table 6 Waste arisings by sector type and size band (tonnes), England 2009

<table>
<thead>
<tr>
<th>Sector</th>
<th>Number of Employees</th>
<th>Total waste (tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0-4</td>
<td>5-9</td>
</tr>
<tr>
<td>Food, drink &amp; tobacco</td>
<td>2,023</td>
<td>13,901</td>
</tr>
<tr>
<td>Textiles / wood / paper / publishing</td>
<td>24,494</td>
<td>60,745</td>
</tr>
<tr>
<td>Power &amp; utilities</td>
<td>1,205</td>
<td>41,332</td>
</tr>
<tr>
<td>Chemicals / non-metallic minerals manufacture</td>
<td>7,158</td>
<td>92,937</td>
</tr>
<tr>
<td>Metal manufacturing</td>
<td>106,022</td>
<td>100,114</td>
</tr>
<tr>
<td>Machinery &amp; equipment (other manufacture)</td>
<td>50,554</td>
<td>49,626</td>
</tr>
<tr>
<td>Retail &amp; wholesale</td>
<td>974,479</td>
<td>1,762,982</td>
</tr>
<tr>
<td>Hotels &amp; catering</td>
<td>137,570</td>
<td>667,289</td>
</tr>
<tr>
<td>Public administration &amp; social work</td>
<td>38,284</td>
<td>108,741</td>
</tr>
<tr>
<td>Education</td>
<td>26,009</td>
<td>79,660</td>
</tr>
<tr>
<td>Transport &amp; storage</td>
<td>16,959</td>
<td>55,451</td>
</tr>
<tr>
<td>Other services</td>
<td>901,350</td>
<td>547,835</td>
</tr>
<tr>
<td><strong>Total waste (tonnes)</strong></td>
<td><strong>2,286,106</strong></td>
<td><strong>3,580,612</strong></td>
</tr>
</tbody>
</table>
3.8 Food waste and the hospitality sector – quantities and composition

Comprehensive sector and material specific studies have produced the most robust data. For example, WRAP’s study of waste in the hospitality sector in 2011 which estimates that in the UK, just over 3.4 million tonnes of waste was produced by this sector with 47% being recycled. Of the waste being disposed of 41% was food, 14% glass, 13% paper and 9% card.

WRAP provided funding to 10 demonstration projects in 2013. The average weekly yields for different business types are shown in Table 7. These yields are the weight of food waste collected per location (collection point) per week, calculated across all the demonstration projects. These average yield figures need to be treated cautiously: the weekly yield varied considerably across the different demonstration projects, as shown by the minimum and maximum figures. The average number of locations collected from in the demonstration projects is also given in this table to show the variability across the different business types.

The large range of weekly yield figures across the demonstration projects reflects the wide variety and sizes of the establishments that produce the food waste. Restaurants and food manufacturers, in particular, can vary greatly in size and hence amount of food waste generated.

Table 7: Weekly yields from the WRAP food waste collection demonstration projects across England

<table>
<thead>
<tr>
<th>Business type</th>
<th>Weekly averages (kgs)</th>
<th>Average number of locations&lt;sup&gt;2&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Min&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>Food manufacturers</td>
<td>153</td>
<td>17</td>
</tr>
<tr>
<td>Grocery stores</td>
<td>230</td>
<td>46</td>
</tr>
<tr>
<td>Higher education</td>
<td>177</td>
<td>56</td>
</tr>
<tr>
<td>Hotels</td>
<td>341</td>
<td>38</td>
</tr>
<tr>
<td>NHS</td>
<td>150</td>
<td>0</td>
</tr>
<tr>
<td>Offices with canteens</td>
<td>401</td>
<td>16</td>
</tr>
<tr>
<td>Offices without canteens</td>
<td>55</td>
<td>5</td>
</tr>
<tr>
<td>Pubs</td>
<td>276</td>
<td>24</td>
</tr>
<tr>
<td>Quick service restaurants</td>
<td>162</td>
<td>23</td>
</tr>
<tr>
<td>Restaurants</td>
<td>467</td>
<td>52</td>
</tr>
<tr>
<td>Schools</td>
<td>114</td>
<td>60</td>
</tr>
</tbody>
</table>

Source: data derived from the collection demonstration projects. Notes:

1 The weekly average figures in the table are averages across the demonstration projects for collections made over eight months.
2 The table shows the minimum and maximum figures of average weekly yield for each trial.
3 The average number of locations that each trial collected from.

<sup>21</sup> The Composition of Waste Disposed of by the UK Hospitality Industry, WRAP 2011
3.8.1 Capture rates

It may be difficult to divert 100% of a material from the residual waste into a recycling stream and so a capture rate figure is often used for estimations. Capture rates\(^{22}\) can vary between users of a service and can be affected by:

- Employee knowledge of the scheme;
- Willingness of individuals to recycle;
- Whether there are alternative routes available for the material in question within their business (e.g. food waste macerators);
- Whether there is sufficient space (footprint) to store and container capacity to segregate the material;
- Distance from where the waste arises to a disposal point; and
- Whether procurement routes and use of goods within the business changes frequently (e.g. changes from glass to plastic containers).

Capture rate for food waste from businesses could be relatively high at around 85%.

As new services are introduced authorities are advised to establish their own systems for capturing data on an on-going basis and to use the information obtained to inform future service planning.

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\(^{22}\) Capture rate = (quantity of a particular targeted material collected for recycling / composting) / (quantity of that targeted material collected for recycling / composting + quantity of targeted material collected for disposal) x100 (from Chapter 7: Monitoring capture rates of WRAP (revised 2010) Improving the Performance of Waste Diversion Schemes: A Good Practice Guide to Monitoring and Evaluation).
4.0 Service planning and delivery

By the end of this chapter you will understand:

✓ Options for service delivery including collection methods and resource requirements
✓ Operational considerations including vehicle types, containers and associated infrastructure/systems;
✓ ;
✓ How to prevent and manage contamination;
✓ Where to go for health and safety information; and
✓ Considerations for the launch of the service

4.1 Collection options

Once you have decided which material streams you would like to collect then it is time to begin more detailed service planning looking at the collections options that are available to you. Many of the options are interrelated, so it is important to consider the service holistically to ensure that a) you fully understand the impacts of one decision on another and b) that operational impacts are understood and addressed from customer collection through to final treatment transfer. For example, the decision to use existing fleet vehicles when launching a service may influence the types of materials you can collect from customers at first. The rural nature of your authority may mean that co-collection of materials with your household collection rounds is the only viable option, which in turn may limit the times of day when you can make collections. Involvement of your working group in this phase will assist in identifying and mitigating against any issues that may arise as a result of a particular decision.

WRAP analysis of local authority services indicates that the elements that appear to make a higher recycling performance more likely include:

- Where recycling is cheaper than disposal;
- When recycling services are provided flexibly where:
  - collections are made more than once a week; or
  - a larger number of materials are collected

Each issue on the spokes of the planning and delivery cycle diagram below should not be considered in isolation because of the interrelationships between them. You may also need to revisit each theme several times before your optimal service is developed.

Most importantly don’t forget your customer needs; if you’re not delivering what your customers require then you won’t maintain a viable customer base in the long term.
4.2 Materials and collection method

Within your service scoping activities you should have established the type and quantities of materials available from within the local business market. You now need to start thinking about whether you need/would like to collect the materials separately (multi-stream) or together (co-mingled), or as a combination:

- Multi-stream collection: materials are separated by the SME or on collection at the kerbside into multiple material streams. The material streams may include a selected mix of some materials, typically cans and plastics, which are commonly separated using basic sorting facilities at the operating depot or sold to reprocessors as a mixed commodity;
- Single stream co-mingled collection: all materials are collected together in one compartment on the same vehicle and must be sorted at a Materials Recovery Facility (MRF);
- Two stream, partially co-mingled collection: materials are collected as two material streams, typically fibres and containers, at least one of which requires sorting at a MRF.
- Single material collection: only one material is collected and requires no sorting.

Considerations regarding which materials and collection method you use include:
- Customer requirements and storage constraints;
- Current and planned operations;
- Available staff resources and infrastructure;
- Local and national drivers e.g. Waste (2012) Scotland Regulations and Waste (England and Wales) Regulations;
- Quantity and quality of materials available;
■ Gate fees and/or income for different mixes of materials
■ Whether glass should be kept separate from other recyclables in order to maintain quality and ensure acceptance by potential end markets/reprocessors;
■ Whether glass should be colour separated to attract greater income;
■ MRF capabilities and acceptance criteria including levels of compaction; and
■ If materials are being co-collected with household recycling, then if there are any interdependencies.

The MRF code of practice\(^2^3\) will help to increase transparency of data on quality of input and output at MRFs, and contamination levels.

The cost comparisons between source-segregated and co-mingled collections will need to take account of all of the above. It is up to local authorities to decide on the most suitable arrangements for their local area but it is advisable to seek input from business so as to increase customer take-up and satisfaction.

4.3 Service model options for a co-collection service

A co-collection service may be suitable for authorities: with very rural areas, those who are just launching their service and are trying to build a customer base prior to investment in a dedicated vehicle, those collecting from mixed hereditaments, and for city centre environments where a one pass approach makes operational sense. There are a number of service model options that are outlined below.

■ Fully aligned: this is where the frequency and day of collection for all commercial waste collections are the same as those for household waste. An example is Limavady Borough Council which co-collects commercial and household refuse on a weekly basis.

■ More frequent collection for commercial than for household: An example of this is where refuse is collected fortnightly from households and weekly from commercial customers. This can require a hybrid approach to be taken such as:
  - Co-collection of commercial waste with household waste on the same vehicle in week one and then on dedicated vehicles in week two; or
  - Co-collection of commercial waste with household waste by one household crew in week one, and another household crew in week two.

Both these options require careful management to ensure that, due to the more complex round structures, the authority does not experience problems with missed bins. A common management solution is to use in-cab technology which can help identify round efficiencies and ensure that work is correctly scheduled in order that each day’s tasks are completed in the allotted time.

■ Co-collect in rural areas: in rural areas a large proportion of a collection crew’s day may be spent travelling (from the depot to the first property, between properties and to the disposal point) rather than collecting. To minimise this time, which is largely unproductive, councils such

\(^2^3\) http://www.defra.gov.uk/consult/2013/02/01/mrf-env-permit-consult-0201/
as Suffolk Coastal, East Northamptonshire and East Ayrshire (see case study below), have integrated their commercial and household collections from rural properties. This means that only one vehicle collects from each area and minimises the crossover of vehicles and the total distances travelled.

**East Ayrshire Council** has adopted the approach that, commercial refuse and commercial dry recyclate is collected on dedicated rounds wherever possible. However, for both geographical and efficiency reasons, in the rural areas the solution can be to integrate commercial refuse and recycling collections with the household alternate weekly rounds. The council assesses the requirements of each commercial customer, and offers a range of containment options, from 140 to 1,280 litre bins, and sacks for those with limited space, or minimal requirements.

- Co-collect commercial and flats and/or inner city houses: this approach is common where local authorities offer a weekly household waste collection to properties with limited storage space – typically flats. The containment provided for flats is often similar in size to that provided to commercial customers.

### 4.4 Establishing the scope (size) of the service

If your authority already has a commercial residual waste service in place then, initially, you may wish to consider restricting the recycling service to existing customers, a particular geographical area or a particular material.

*Providing recycling services to existing residual waste customers only*

If you are developing your existing residual waste service to introduce recycling you may want to consider the following:

- Whether there is spare capacity (vehicles and crews) within the existing commercial service to accommodate a new service;
- Administering new customer contracts and invoicing procedures and the resources needed to manage this process;
- Less residual waste needing collection and disposal (because recycling increases) and the implications for individual customer collection arrangements (e.g. smaller or fewer containers or less frequent collections);
- Potential for loss of income from the residual waste service balanced against income from charges for the new recycling service and income from sale of recyclables.

*Gradual/staggered service provision*

It is worth considering restricting service provision particularly where a phased approach would be of benefit, for instance:

- Targeting a specific material e.g. cardboard
- Targeting a specific geographical area
- A pilot, to enable accurate resources and costs to be established with roll out of the service being planned over time.
Considerations for this situation include:

- It would allow for a steady development of the service;
- Depending on available resources, it may utilise existing spare capacity amongst crews, vehicles and other infrastructure;
- It can be easier to monitor for contamination;
- It may be easier to manage costs and any initial cash flow problems;
- It can inform the development of a detailed longer-term business model;
- It provides a mechanism for a council to cap the service e.g. in terms of customer numbers in the event of the need to manage costs. In this case a waiting list could be created for customers to be brought on board as capacity becomes available - although a business is perhaps unlikely to ‘wait’ if they have the option of a different service provider;

If the service is open to all businesses in the authority’s area there are a different range of considerations which include:

- Potential increases in the total amount of residual waste collected if new customers are offered a service for both recycling and residual waste;
- What capacity is there to accept increases in customer numbers;
- The need for a high level of planning, investment and management, depending on the scope of the service. E.g. if a very specific geographical area is targeted

4.5 Health and safety

Health and safety should be considered in all aspects of the service. Comprehensive risk assessment is essential to ensure that services are delivered with risks controlled so far as is reasonably practicable. Considerations include:

- Manual handling
- Safe systems of work
- Safe movement of vehicles
- Noise
- Access to bins by the public including issues with arson and people seeking refuge in larger bins.

4.6 Vehicles

There are a number of points to consider when deciding which vehicles would be suitable for your commercial recycling collection including to what extent existing vehicle capacity could absorb additional demand for commercial collections. Ideally any spare capacity from existing fleets would be utilised in the first instance but consideration could be given to short-term hire of a vehicle for pilots/trials. Leasing options could be considered over outright purchase. Points to consider include:

- What vehicles will be best suited for collections?
- Are suitable vehicles available in the current fleet or will vehicles need to be bought or hired?
- Is there scope to share vehicles with another authority either through cost-sharing or using any joint spare capacity?
- Are there opportunities for working with other service providers (private/civil society organisations) including neighbouring authorities?
- How will the type of vehicles affect the containment options to be provided?
- Where household recyclables are collected on kerbside/stillage vehicles, can these accommodate commercial recyclables, and if so, how should the materials be presented for collection?
- Bulk density and compaction of collected materials - consider the volume of the materials that would be collected in relation to the fill rate of, and compaction rates applied to, each vehicle compartment. Many businesses produce large volumes of cardboard; ensure, if you use a MRF, that it can handle the additional materials being collected (quantity and type) and check if they have limits on compaction levels;
- Area restrictions e.g. street width and access points;
- Weight, volume and type of materials being collected;
- Collection method – source segregated or co-mingled;
- Containers – any co-dependencies on vehicles e.g. lifting mechanisms and rave height; and
- Health and safety.

4.6.1 Food waste collection vehicles

The design and style of commercial food waste collection vehicles should primarily be influenced by the yields generated from the collection rounds, site or area access issues and travel distances to unload. They will also be influenced by the demands of the delivery arrangements at the location where collected loads are deposited and this should be checked.

RCVs should ideally turn down the compaction to avoid spilling food wastes and reduce risk of overloading the vehicle.

If selecting co-collection options you should consider the relative volumes of the high density food waste and low density packaging recyclables and their subsequent space requirements in vehicle compartments from likely yields.

The vehicle types that could be used for commercial food waste collections include:

- Rear Load
- RCV with Pod
- Twin Pack (split body) RCV
- Toploader
- Flatbed 7.5t with tail lift for bin swap model
The **London Borough of Bexley** collects commercial food waste on its household rounds using Rotopress RCVs. The commercial food is accounted for using a ready reckoner system that converts the known number of bin lifts on a round to an estimated weight.

### 4.7 On board vehicle weighing and GIS systems

These systems require bins to have a chip installed which is used to identify the customer and the individual bin. The bin chip is read whilst the bin lift registers the weight of each bin during emptying. The vehicle is fitted with a transponder which then communicates the weights of the bins collected to a central database. GIS mapping is incorporated into the system, which provides information on the last known location of the bin and its weight.

The GIS system enables collection rounds to be optimised by creating the shortest route between customers with the benefits of reducing fuel usage and carbon emissions (although carbon from collections themselves is only a small proportion of the significant savings in carbon from recycling). The ability to record the time and locations also provides greater customer service, preventing non pick-ups escalating into complaints or disputes.

**Key benefits of on-board vehicle weighing and GIS systems include:**

- Accuracy for recording weights;
- Ability to analyse individual customer bin weights;
- Transparency of billing;
- Route optimisation (because the software can plan the most efficient route);
- Prevents bins being missed by crews (because the software can check bins off as they are lifted);
- Can help check that businesses are using the correct sized bin for the amount of waste they are producing;
- No unidentified bins are lifted;
- Provides a means to identify businesses who are producing heavier bins than average for example for food waste services;
- Provides the option to introduce pay per weight as a method of charging;

The key considerations if proposing to use on-vehicle weighing systems are outlined below.

<table>
<thead>
<tr>
<th>Potential Issues</th>
<th>Cost / resource factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upfront capital costs of equipment and supporting software; on-going maintenance costs.</td>
<td>Weighing equipment.</td>
</tr>
<tr>
<td>Practicalities of fitting radio frequency identification (RFID) tags may depend on who owns the bins – the council or the customer.</td>
<td>RFID tags.</td>
</tr>
<tr>
<td>Additional IT interface requirements.</td>
<td>Installation of tags.</td>
</tr>
<tr>
<td>Can only work with sack/box collections where the use of ‘slave bins’ is practical and if the information from RFID tags can be split per customer.</td>
<td>Annual maintenance and calibration.</td>
</tr>
<tr>
<td></td>
<td>IT system and supporting software.</td>
</tr>
<tr>
<td></td>
<td>Establishing and maintaining the customer database that links tag and property IDs.</td>
</tr>
</tbody>
</table>
After implementing a GIS bin weighing system, Oxford City Council identified potential customers who may be interested in food waste collections by looking at the weights of the residual waste bins which the council collected. The Council calculated that the average weight of a residual waste bin was 150kg per lift (based on an 1100 litres residual waste bin); they then targeted those businesses that exceeded this weight.

The council identified one customer, a chain of hotel and restaurants with three sites in Oxford that was producing over 200kg per lift (residual waste bin) and was only recycling glass. The council approached the business to discuss food waste. As a result of them implementing food recycling the customer significantly reduced their residual waste and benefitted from cost savings.

Peterborough City Council, in partnership with its waste contractor, implemented a GIS/bin weighing system. All businesses received a letter informing them of the new system which required the fitting of a chip to the bin and would be recording and analysing the weights of all bin lifts. There were very few objections to the new system. Those that did object received a courtesy call, explaining the need and benefits of the new system, resulting in no further concern. The council reported seeing a number of the benefits outlined previously including:

- Transparency of service;
- Transparency of billing;
- Provides greater emphasis on the polluter pays principal;
- No more missed bins (because the software also acted as a route planner and checks the bins off as they are lifted);
- Ensures that businesses are using the correct sized bin for the amount of waste they produce;
- No “unidentified” bins could be lifted;
- Provided an inventory of bins to the council.

A key issue reported by the Council when implementing the system was difficulties in retro-fitting RFID tags to the bins, in particular, the time it took.
4.8 Transfer and treatment

Expanding an existing service or launching a new service will mean that you need to consider whether there is capacity for additional vehicles, staff, containers and material at your current site(s).

Considerations include:
- Can you direct deliver to a facility?
- Do depots and sorting facilities have enough capacity, space, personnel and equipment to accommodate the tipping, handling, sorting and bulking of additional waste/materials? Or will they need transporting/ delivering to an alternative facility?
- Are there contractual or licensing constraints associated with handling commercial waste at existing facilities?

If you intend sorting and/or bulking up in-house then issues to consider include:
- Is there sufficient space within existing depots or the ability to expand or develop them to provide the additional space?
- The range and quantities of materials and how much space is needed to store them;
- How materials would be sorted/handled and what equipment and staff resources would be required including any requirements for baling / compaction;
- Whether netting or roofing is needed;
- Any necessary re-engineering of the site;
- Planning permission for change or use or quantity/range of materials handled and the potential increase in vehicle movements;
- Any need for a weighbridge; and
- If collections are made on bank holidays, there will need to be access to facilities for the delivery of materials.

If sending the material straight to a MRF:
- Assess capacity available at the MRF;
- Ensure that any agreements regarding minimum and maximum quantities, are appropriate and deliverable;
- Agree material quality specifications and protocols for assessing quality against them, how arrangements are communicated and to whom? Dispute resolution arrangements will also need to be agreed. Ensure that the issue of vehicle compaction levels is discussed and agreed;
- Where appropriate compare gate fees at different MRFs and check the differences for delivering separated streams and co-mingled streams – prior to designing/offering the service. It is also important when obtaining prices to find out how long they will be maintained;
- Consider options for income (from sale of recyclables) sharing; and
- Access to facilities may be required if collections are made on bank holidays.

4.9 Collection frequency and timing

Some commercial customers are likely to have specific collection requirements, for example the need for additional collections due to seasonal shifts in their business activities, such as at Christmas or other holiday periods. Local authorities will need to consider how to accommodate any specific requirements.
It is commonplace for some businesses to want collections within certain time windows and at times which may fall outside the normal household collection round timings. This may prevent efficient co-collection arrangements. In addition, and in order to work their assets more efficiently, many local authorities are considering the benefits that four-day working (and other shift patterns) can offer. Such changes, which commonly involve collections being made over more hours in the working day, and potentially at weekends, may cause some issues with co-colling but could offer greater flexibility in collecting from commercial properties at their desired times.

Any intended move to co-collections, based on a four-day, or other extended day shift pattern, should be accompanied by a review of relevant legislation such as the EU Driving rules (regulation (EC) 561/2006). Where commercial waste is collected, these regulations take precedent over domestic requirements and place more stringent limits on daily hours of work and periods of rest.

In seeking to maintain high standards of customer service to households and businesses alike, some element of operational flexibility is required. It may be that, by freeing up resource through a move to co-collections and standardising the service to households and businesses as far as possible, the spare resource can be used to respond to the inevitable ad hoc requests for additional collections.

In April 2012, City of London (CoL) introduced time-banded commercial waste and recycling collections. The policy ensures businesses are restricted from putting waste out between the hours of 8am-6pm; between 6pm-midnight waste can only be on street for a maximum of 2 hours before it is collected; and from midnight-8am, there is no restriction as long as it is collected before 8am. Nine enforcement officers work 24 hours a day, seven days per week to enforce the policy. If waste is out during the restriction or for longer than it should be, an enforcement officer visits to assess the waste, identify where it came from and serve a Section 47 notice under the Environmental Protection Act 1990. In advance of the time banding policy, Enterprise Managed Services (the contractor that purchased CoL’s commercial waste portfolio) and CoL conducted an in-depth consultation to inform businesses and third party contractors of the new policy.

### 4.10 Collection round optimisation

It is important that vehicles are fully deployed and collection time is maximised if collections are to be optimised for maximum efficiency. It is essential, therefore, to ensure that routes are effective and frequency of collection is adequate, taking into account the varying demands of businesses and the market. Key issues include the following:

- It is important to optimise available resources. If there is spare capacity on existing household waste and recycling rounds it could be used to accommodate collections from business customers. Equally, in areas where commercial premises predominate, spare capacity on commercial waste rounds could be used for household waste.
If co-collections of household and C&I materials are made, then consideration will need to be given to ensure that tonnages are recorded separately for the purposes of obtaining recycling credit payments (where relevant), Waste Data Flow reporting, gate fees and budgeting. On-vehicle bin weighing is the most accurate means; however, an assessment can also be achieved by using WRAPs ‘apportionment tool’ which works simply by inputting the number of containers lifted and the tool calculates the tonnage.

In general it is cheaper and easier to collect on scheduled rounds and at regular frequencies as opposed to collecting on-demand. However, some smaller SMEs may believe that they do not have sufficient recyclables to warrant regular scheduled collections and would prefer an ‘on demand service’. If such a service is to be offered, it is important to have a minimum collection agreement, for example a minimum of four full sacks per collection as well as a bookings policy e.g. requiring the service to be booked before 15:00 hrs. for a next day collection.

In addition, it is important to remember that some businesses may need one off collections in addition to scheduled collections. At particular times of the year (e.g. Christmas, office clear-outs, restocking) businesses may have extra volumes of recyclables. Consideration needs to be given to how the service will respond to these demands for additional or one-off services, whether there will be a bookings policy and how extra services will be charged e.g. local authorities may apply an hourly rate plus a rate for each container/ material type.

4.11 Containers

Different types of containers should be provided to customers depending on their individual needs, material streams and the frequency of collection. As businesses vary so much in terms of size, storage space, waste arisings, etc. it is common for a range of containment options to be offered. It should not be assumed that containment needs to be the same as for household waste/recyclables. Considerations for containers include:

4.11.1 Container type and capacity:

- Type, weight and volume of materials produced and the potential need for a variety of containers;
- Glass, paper and food are dense and heavy materials and it is important that consideration is given both to mechanical and manual handling restrictions. Bins cannot simply be filled to the brim as this risks them being too heavy to move and/or lift;
- Provision of reusable containers such as wheeled bins and/or single use containment such as polypropylene sacks or food waste liners;
- Whether the authority will provide internal containers e.g. caddies for food waste;
- Any co-dependency on a vehicle e.g. lifting mechanisms;
- In urban areas where storage space can be limited, it may be necessary to offer sack or bundled collections for dry recyclables, the charges for which are recoverable through customer purchase of sacks, tape or stickers. The latter is covered in greater detail in the section on charging. Where co-mingled collections are proposed, can the MRF/sorting plant handle single use sacks if these are used?
- When introducing a recycling service, part of the sales strategy may be to reduce the size (capacity) of bins and/or frequency of collection for non-recyclable, residual waste. Some businesses may be nervous about reducing capacity for their residual waste and initially resist so it may take some time to achieve the right balance between the number and size of
containers and frequency of collections. It would be advisable to seek continuous feedback from customers to ensure the service is working well for them;

- Branding.

4.11.2 Logistics

- Available storage space by customers to accommodate containers;
- Container pick-up point(s) i.e. where will the container(s) be presented for collection?
- Where materials are presented on-street for collection it is important to ensure that collections comply with any time bands in force during which waste is permitted to be put out. Avoiding waste being left out overnight is particularly important in order to prevent arson and discourage vandalism, litter and vermin;
- Proximity of pick-up and/or presentation points to sensitive locations e.g. busy thoroughfares, schools, places of worship, hospitals, sheltered accommodation – health and safety needs to be considered in terms of blocking traffic and mixing of pedestrians with vehicles;
- Proximity of pick-up and/or presentation points to residential accommodation;
- Health and safety i.e. risk assessments by customer and service provider. This might include consideration for arson and bin theft as well as manual handling, including reference to bin manufacturer’s weight safety limits etc.;
- Times of collection – for example a glass collection may be considered to be too noisy for an evening collection if it is close to residential properties;
- Frequency of collection;
- Access to premises – will a key or access code be required or will access only permitted during working hours?
- Ability for the authority to store containers at their own premises or arrangements for call off and delivery from the manufacturers (potentially at short notice);
- Number of suitable containers available in-stock for start-up or scheme expansion demand.
- Whether containers will be charged for separately e.g. bin rental or sold to the customer, or whether costs will be included in an overall charge.

4.11.3 Internal bins

Internal bins are likely to increase the capture rate of materials e.g. siting food waste caddies in kitchens and paper recycling bins inside offices. Good practice would be to have a 'walk around' (particularly in larger business premises) to suggest where containers could be located.

It could be considered whether or not internal bins are hired to customers – this could be a potential source of additional income.

In choosing/recommending the internal containers, the following issues should be taken into consideration:

- Type and number of recyclable material to be collected;
- Any requirement to keep materials separate;
- Use of signs or labels on the container(s) indicating what types of material can be deposited for the purposes of recycling;
- Availability of space in chosen locations to host containers;
Manual handling; Quantity of material to be collected and emptying/storage arrangements; Width of doorways and corridors;

- The presence of any stairs or other impediments to wheeled containers; and
- Availability of any service lifts to transfer materials.

Removing some internal residual waste bins and providing additional recycling bins is an effective means of increasing participation by making it easier to recycle and making people think twice before throwing something away. It is important that the service is explained to staff prior to implementation to encourage their support and participation, and to prevent contamination of the recycling materials.

4.12 Food waste containers

Due to the high density of food waste, care should be taken when deciding on the size of containers to issue to customers. This is often overlooked resulting in bins that are too heavy for operatives or customers to move and too heavy for bin-lifting equipment on vehicles. For example, a 240 litre wheeled bin of food waste could weigh more than 100kg when close to being filled. Such a mass of material in one wheeled container potentially has serious implications for the safe manual handling of the container (by waste collection operative or customer).

Although a range of container sizes are being used by organisations running food waste collections it is advised that containers of 140 litres or less are provided. 140 litre bins, if completely full, will be still very heavy and could pose a serious problem for both operatives and kitchen staff. Hence, for the average customer, it may be worth considering either more than one 140 litre bin for a weekly collection, or alternatively, if the service can accommodate it, more frequent collections. Only where more than one operative is available to handle containers should larger containers be considered (and even then a thorough risk assessment would need to be undertaken). Internal caddies should be no larger than 35litres. For smaller premises such as offices and schools, household food waste containers (~20-25l) or ‘household kitchen caddies’ (5-10l) may be more suitable.
Liners are considered by many organisations running food waste collection services to be a key factor influencing the uptake of, and continued participation by customers, in the service, as well as helping to improve the capture of wetter food waste. Liners help keep containers clean and reassure customers that the service is hygienic. In addition, encouraging the use of liners has been found to help reduce contamination as customers are not tempted to use plastic bin liners as a substitute.

The above photographs show wheeled food waste containers with liners in the external storage area at Bristol University. There is a separate aperture opening in the integral lid to allow for the easy deposit of food waste and to minimise nuisance.
4.13 Contamination

It is important to have processes in place for identifying and managing contamination. Recyclables will not be accepted by reprocessors unless they meet their quality threshold and an entire load of material can be rejected because of contaminated material from a single customer on the round. Tips to address contamination include:

- Explain to customers why contamination is such an important issue;
- Provide brief training sessions to the customers’ staff;
- Provide bin stickers and posters to customers to explain what materials can/can’t be placed in recycling containers. This may include pictorial signs and/or signs in appropriate languages in order to overcome language barriers;
- Train collection crews to check bins/bags as they are emptied;
- Use transparent sacks for bag collections;
- Arrange for supervisors to undertake spot checks;
- Speak to customers who contaminate to understand if there are any underlying issues e.g. incorrect balance of residual/recycling services;
- Explain the contract requirements;
- Develop procedures for managing the issue and build these into contracts (including charging customers for disposal of contaminated loads).

It may be worth considering whether any of your existing policies and practices for identifying and dealing with contamination of household recyclables could be adapted for commercial recycling.

There are approximately 5,000 businesses in the London Borough of Bexley; a third of which have contracts with LB Bexley. 76% of these receive a dry recycling service and 15% also recycle food waste. For the collection of food waste, businesses receive a 140 litre bin and an internal caddy (plus liners). The service is integrated with the household service and businesses receive two visits; one to agree the contract and a second, when the bins, caddy and liners are delivered, to set up the service. This allows the Commercial Waste officer to develop a good working relationship with each business. When the business runs out of liners for the 50litre caddy, they either contact the Commercial Waste officer, or the generic council contact centre to request more, which are delivered by the crew at the next collection.
4.14 Monitoring/reporting tonnage and allocating costs: Co-collection

Any decision to integrate household and commercial collections needs to be underpinned by a robust method for determining, and subsequently monitoring, the tonnage of each waste stream (sometimes referred to as Household / non Household split).

There are several key reasons for monitoring and reporting tonnages separately:

- **Statutory reporting** – Waste Data Flow quarterly and annual returns require councils to separately report household and ‘other municipal’ waste tonnages;
- **Service improvements** – information to inform how the commercial service is performing and any action to improve performance;
- **Apportioning costs** – the monitoring of co-collected waste tonnages will help in assessing the relative costs of the household and commercial waste services. As well as top level budgeting, this information will be needed to determine charges and ensure that the commercial operation is covering its costs;
- **Recharge** - for waste collection authorities operating under a two-tier structure, a further consideration is the mechanism for reimbursing the waste disposal authority for the cost of disposing of the commercial waste collected. This will need to be underpinned by accurate information on the quantities collected;
- **Recycling credit payments** - where recycling credit payments are made for household recyclables, it is important for waste collection and disposal authorities to have in place procedures to assure themselves that:
  - The relevant materials originate from the household waste stream;
  - The tonnage of materials on which credits is claimed is as stated; and
  - The materials on which credits are claimed is being recycled or reused.

- **General good practice** – maintaining accurate and transparent information on local authority services and their performance. This is particularly pertinent as more SMEs require data on the percentage of material they have recycled for their own environmental reporting purposes.
WRAP, in conjunction with the LARAC, NAWDO, Defra, the Environment Agency and Natural Resources Wales has developed a tool to assist local authorities with the apportionment of household and commercial waste/recycling. In order to use the tool you simply need to know how many lifts you are making by container type. The tool can be accessed on the WRAP website: [www.wrap.org.uk/la-apportionment](http://www.wrap.org.uk/la-apportionment)

**Ribble Valley Borough Council** is a semi-rural waste collection authority in Lancashire. The council operates in-house collections of weekly refuse, and fortnightly recycling and garden waste collections from households. The council’s vehicles are split bodied and used on a fortnightly cycle to collect refuse and recycling in week one, followed by refuse and garden waste in week two. The council also collects residual waste from approximately 414 commercial customers; this is co-collected on the household waste rounds. The Council is investigating options for the provision of recycling collection service to its commercial customers.

The council must provide payment to the Waste Disposal Authority (WDA) for the disposal of the commercial waste it collects. Ribble Valley and the other Lancashire Waste Collection Authorities (WCAs) have agreed with the WDA a formula to calculate the proportion of commercial waste collected.

The formula used is based upon average weight of collection containers, multiplied by the number of lifts. The calculated total tonnage is used to inform the disposal charge payable to the WDA. The average container weights were agreed following a waste analysis undertaken across the Lancashire Waste Partnership by independent consultants.

**North London Waste Authority (NLWA)** is the WDA for its seven constituent boroughs - Barnet, Camden, Enfield, Hackney, Haringey, Islington and Waltham Forest. In 2008/09 NLWA adopted a scheme to assess the amount of commercial waste in each constituent borough’s residual waste stream.

NLWA commissioned a survey of the weights of non-household waste across the authority area. A sample of 350 wheeled bins and 350 sacks was assessed. This provided an average volume to weight ratio. Each cubic metre of non-household container capacity amounted to 0.082 tonnes of waste. The survey is to be repeated every two years.

Boroughs are able to undertake their own analysis provided that the methodology is agreed with NLWA. Each WCA provides a declaration of the volume of commercial waste collected annually, and where relevant, the specific volume to weight ratio for their area. These figures must be approved by a director and validated by NLWA.
4.15 Resource requirements

Whatever the scope of the service that you are delivering it’s important to understand what the potential impact will be on existing staff and what new staff you may need to bring into the service. Resources for sales and marketing are covered in the Sales and Marketing chapter.

4.15.1 Management resources

Setting up alternative collection schemes/rounds will require staff time to plan and manage. Identifying a suitable person within the authority/contractor team with the capacity, knowledge and skills to do this is key to the success of the project’s initial set up and its on-going deliverability.

4.15.2 Administrative resources

- Are there adequate resources to handle any additional clerical/ administrative tasks such as invoicing?
- Does the call centre have capacity to deal with any additional enquiries?
- Changing collection arrangements and rounds might require some changes and this needs to be carefully thought through, for example, are there adequate resources to handle any additional administration/reporting requirements, such as:
  - Additional auditing of material flows through the collection system and associated infrastructure in order to comply with reporting requirements; and
  - Allocating costs between the household and commercial services where appropriate.

- It may be advisable to check your data handling systems to ensure that they support a co-collection approach if this is to be adopted. There may be value in integrating all customer data sets across household and commercial operations, for example, to consider methods for:
  - Maintaining the Local Land and Property Gazetteer;
  - Developing bespoke reports within the Customer Relationship Management system;
  - Developing a common billing approach, e.g. by integrating bulky waste collections, commercial and other subscription-based services.

- If materials are co-collected with household it may makes sense to integrate the supporting management systems, although it is important to be able to report separately on household and commercial services.

4.15.3 Rounds and crew sizes

Rounds and crew sizes may need to be adjusted if commercial recycling services are introduced to make best use of spare capacity across a number of crews. Adding another collection operative to a crew may increase efficiency when servicing a variety of properties with different access arrangements and bin types. Local authorities should consider:

- Is there capacity within existing crews?
- How many more crew members or crews would be needed to operate the service?
- Could crews be re-organised to optimise efficiency?
- What additional training would they need?
Could current services be reviewed and reorganised to release vehicles and crews to deliver the new service?

Could routes be optimised across authorities to use joint spare capacity?

Are there opportunities for working with other service providers (private/civil society organisations, including contractors, merchants, and Business Improvement Districts)?

Any intended move to co-collections, based on a four-day, or other extended day shift pattern should be accompanied by a review of relevant legislation such as the EU Driving rules (regulation (EC) 561/2006). Where commercial waste is collected, these regulations take precedent over domestic requirements and place more stringent limits on daily hours of work and periods of rest.

Staffing needs at depots or other facilities (to deal with any additional sorting and handling of materials)

4.16 Customer records/database

It is important to communicate with crews at all stages of developing the service through to the operation of the service itself. They are ambassadors of the service and should be able to help deal with and report on issues such as contamination and bin storage as well as providing initial advice and support. They are also very likely to have good suggestions for the overall service design and the best ways to collect the materials from specific locations, particularly if they already collect residual waste from those businesses.

Fareham Borough Council found that collection crews were best placed to provide market intelligence for their service. The crew are able to report on new businesses and developments on existing collection routes.

It is important to set up a robust system for customer records. Involvement of your working group will help identify the full scope of the system. Consider what analysis you might want to do using the database for monitoring and improvement purposes as well as day-to-day needs. If accounting information is held on a separate system then consider how the two can be linked for analysis purposes e.g. customer reference numbers. Keeping these records up-to-date is critical and should be built into the job description of appropriate personnel.

4.17 Launching your service

The timing for the launch of a new service depends on a range of factors, both operational and communications. The obvious time to launch a new service is when everything is in place and ready to go, although there are some other considerations. If the Project Manager uses a ‘traffic light’ system to record the progress against all the elements of the project plan, then it will
become apparent when it is time to sign off a final checklist and launch. Assuming that everything to do with the planning phase has been completed, the main points of a final checklist should include:

- Customers recruited, supplied with containers, and notified of schedule;
- Vehicles and crews available, round sheets issued, operatives briefed and trained;
- Administration complete - agreements signed, waste transfer notes issued, accounts on system, payments confirmed for prepaid elements etc.;
- Call centre staff notified and fully briefed – although this will need to be done prior to the recruitment of customers and the issuing of containers;
- Street-based public realm staff, Business Improvement Districts, and other third parties as appropriate notified and briefed;
- Transfer and bulking facilities or MRF (and relevant staff) notified and briefed as appropriate e.g. collection vehicle registration numbers supplied to weighbridges;
- Communications group fully briefed e.g. for any publicity of launch, cabinet member and chief officer briefed; and
- WDA informed of start of scheme.

Other issues to consider when launching a new service may include avoiding:

- Key holiday periods as staff availability, both within the authority and the businesses being invited to subscribe, may be limited, and key contacts unavailable;
- Peak sales times – particularly Christmas, when businesses may not have time to consider an additional service/operation;
- Launching a service at the same time as major changes to other services are due to be implemented e.g. new household waste collection schedules; and
- The winter months when extreme weather may lead to temporary disruptions to services.
5.0 Costs and income

This chapter covers the important issue of costs and income. By the end of this chapter you will understand:

✓ What costs need to be included;
✓ What the potential charging mechanisms are;
✓ How to maximise income; and
✓ What key aspects should be included in contracts.

5.1 Cost items

A firm handle on the costs of running your service is essential in order to understand what charges should be made, ensure that the service is (at minimum) breaking-even and for general business planning purposes. Typical costs are outlined in the checklist below. Use the list as a reminder to ensure that you’ve covered all of the cost items you should consider.

Table 8: Typical collection service costs checklist

<table>
<thead>
<tr>
<th>Cost item</th>
<th>Should include</th>
<th>Tick</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collection vehicle/s</td>
<td>Hire charges, capital repayment costs, maintenance costs, fuel costs, insurance, road fund allowance, allowance for accident repairs, sign writing, allowance for “spare vehicle” cover for routine maintenance and breakdowns.</td>
<td></td>
</tr>
<tr>
<td>Collection crews (labour)</td>
<td>The cost of drivers and loaders, including on costs, pension costs, sickness and holiday cover.</td>
<td></td>
</tr>
<tr>
<td>Supervision &amp; management</td>
<td>The cost of supervision and management, including on costs, pension costs, sickness and holiday cover.</td>
<td></td>
</tr>
<tr>
<td>Depot overheads</td>
<td>A reasonable share of the costs of the collection depot, potentially allocated according to the number of vehicles based at the facility (or a proportion of this if the vehicle(s) is also used on other services).</td>
<td></td>
</tr>
<tr>
<td>Container costs</td>
<td>The cost of purchasing all containers (and liners for food waste as necessary) as well as refurbishment and repair. A method of spreading these costs over a number of years should be determined. It may be appropriate to include storage costs for the period before they can be issued to customers.</td>
<td></td>
</tr>
<tr>
<td>Material handling, bulking and transport costs</td>
<td>If materials (in particular food waste) cannot be directly tipped at a treatment facility then there will be costs associated with bulking and onward transport of this waste.</td>
<td></td>
</tr>
<tr>
<td>Material treatment costs</td>
<td>The type of material collected, method of treatment and location within the UK are some of the factors that will determine whether you will charge a gate fee or receive an income for the material collected. Cost or income should be calculated based on the gate fee/income charged/paid by the treatment facility times the quantity of material (tonnes) to be treated.</td>
<td></td>
</tr>
<tr>
<td>Contamination</td>
<td>Costs arising from rejection of load due to contamination/failure to</td>
<td></td>
</tr>
</tbody>
</table>
5.2 Impact on residual waste income
Adding recycling services to a residual commercial waste service will reduce income generated by the latter but this shortfall should be offset by a combination of:

- Appropriate charges levied on the recycling service;
- Income generated from the sale of recyclate;
- Avoided disposal and landfill tax costs; and
- Income protection - offering a comprehensive recycling service may help protect income generated from residual waste services and help an authority to retain its existing customers.

Avoided costs are valuable, and a major incentive for providing a commercial recycling service, but lack the certainty of direct income from charging for the services. Surplus income could be reinvested in the service, however, this needs to be agreed with your finance officer in advance. A peak in income in one quarter may be needed to offset reduced income in other quarters. In order for the benefits of the whole waste and recycling service to be understood, early involvement from your finance officer is crucial.

5.3 Charging
Local authorities are allowed to make a reasonable charge under the Environmental Protection Act 1990, Part II Section 47.

Charges should:

- Reflect the costs of providing the services - commercial recycling services should be charged-for as, in general, the income from the sale of recyclates alone will not cover the costs of providing the service. Common feedback from SMEs to local authorities is that they believe recycling services should be free. The

Authorities that have provided a 'free trial' to incentivise customers to take up a recycling service have reported limited success, particularly if charges are not made clear at the outset; e.g. “free trial for two months and then we’ll work out the cost” would not, for instance, help any business plan its finances. Businesses are likely to be wary of future charges making recruitment difficult and many may drop the service after the initial free trial, resulting in serious issues for the on-going viability of the service through loss of income and inefficient use of resources.
reasons why this is not feasible need to be communicated to SMEs in marketing materials and via other routes e.g. on the website, during face-to-face meetings, on site visits etc.;

- **Reflect revenues from the sale of materials** (depending on contracts and collection method) e.g. if cans / tins are collected separately from other materials, then you would expect them to be charged at a lower rate compared to glass;

- **Be proportionate** – some flat costs should be applied per lift regardless e.g. it costs the same amount of money to drive to collect a 360 litre bin as it does an 1100 litre bin and other costs should be reflective of the bin size e.g. an 1100 litre bin is more expensive to purchase than a 360 litre bin and you would expect it to contain more material;

- **Be reasonable and clear** – in line with the Business Waste and Recycling Service Commitment. For example, you may wish to outline what proportion of the price relates to disposal costs or state how much landfill tax is on invoices;

- **Be reviewed at least once per year** in line with the budgeting process and to ensure local market relevance; and

- **Incentivise recycling** - in order to incentivise businesses to recycle, it is advised that charges for commercial recycling services are set at a lower rate than those for residual commercial waste (where feasible). A key sales strategy should be to (where possible) reduce the size of the residual commercial waste bin when introducing recycling in order to balance out the costs of the service to the business.

It is important to consider whether sales staff will be able to offer any form of discounts to win larger commercial waste and recycling contracts – including groups of, or larger individual SMEs. If so, governance processes need to be put in place covering levels and authorisations – this would include annual authorisation e.g. cabinet approval when agreeing fees and charges. Discounts could be agreed in advance based on a number of factors such as number of lifts and distance from the depot. A consideration for some authorities is equality. While in the private sector individual pricing and discounting is common, for local authorities it may be a political decision that all customers are treated equally and charges applied equally.

**Westminster City Council** (WCC) currently invoices customers one month in advance. Customers can pay in a variety of ways to provide the greatest level of flexibility. It’s been recognised that a certain percentage of the market will always want to pay cash and WCC have partnered with the Post Office to enable this (customers pay for sacks at the Post Office and then they’re posted directly to them). If an authority runs a significant service WCC suggest that an online ordering system for sacks is considered.

The debt management protocol fits with WCC’s corporate policies; with incentives currently being developed for direct debit payment. WCC’s advice is to make it easy for a customer to pay for their waste services in as many ways as possible.
5.4 Arrangements in two tier areas
Councils in two-tier areas are subject to Section 52(9) of the Environmental Protection Act 1990, which states that a WDA is entitled to receive from a WCA “such sums as are needed to reimburse the waste disposal authority the reasonable cost of making arrangements for the disposal of C&I waste collected in the area of the waste disposal authority.”

In most cases, a WDA recharges its constituent authorities annually, based on either the existing council tax base or on actual derived tonnages. The basis of the payment system is agreed between the WDA and WCAs.

For local authorities that co-collect household and commercial materials, the only difference is that quantity collected may be estimated (Household / non-household split) rather than actual.

5.5 Price Lists
Consideration should be given as to how and where price lists are published. While these charges will be publicly available (e.g. due to freedom of information), it does not necessarily mean that a price list needs to be advertised e.g. on commercial waste/recycling pages of a local authority website. It could be that charges are only provided to customers upon request.

Benefits of advertising charges e.g. publishing on website include:
- Transparency and reassurance to the customer;
- Provides businesses with a benchmark so when they get quotes from other companies they can be assured that they are not being ‘ripped off’; and
- Convenience for businesses, many of whom are used to reviewing charges for products and services via company/organisation websites.

However, there are also benefits to not advertising charges. These include:
- If businesses need to enquire, then it might provide additional opportunity to explain the benefits and other aspects of your particular service as well as capturing their contact details so you can follow-up with them later.
- Enabling sales staff to charge customers based on individual circumstances. This could be providing discounts on list prices as well as increased charges, for example if customers are more logistically costly to service; and
- Not making it so easy for competitors to compare and adjust their pricing based on yours e.g. providing a price to a customer that is a few pounds cheaper.

If price lists are advertised, then they could perhaps be caveated to allow the authority some flexibility and provide a signal to customers that discounts may be available, or they could be positioned as “prices start from as low as £xx” by quoting the cheapest service price (if appropriate).

5.5.1 Value added tax (VAT)
On 9th February 2011, HM Revenue and Customs wrote to all local authorities to confirm that commercial waste collection services provided by local authorities are outside the scope of VAT. This is a useful selling point which is used by many local authorities.

5.6 Charging mechanisms
There are a number of methods of charging for commercial recycling collection services. Examples, together with associated benefits and considerations, are outlined below:
Table 9: Benefits and considerations involved with charging for commercial recycling collection services

<table>
<thead>
<tr>
<th>Charging method</th>
<th>Benefits</th>
<th>Issues/considerations</th>
</tr>
</thead>
</table>
| Payment in advance | ■ Reduced risk of bad debt  
■ Assists with budgeting | ■ How to charge for ad hoc / additional collections – could either be agreed in advance, or payment could be taken in arrears |
| Payment in arrears | ■ Businesses are likely to prefer this option | ■ Greater risk of bad debt  
■ Local authority will have fronted all the costs before receiving payment to cover them |
| Pay for a fixed number of regular lifts over a given period e.g. quarterly | ■ Potential for maximum operational efficiency | ■ Customers may be paying for more lifts that they need  
■ Little incentive for businesses to reduce their waste |
| Pay per lift | ■ Suitable for ad hoc or ‘on demand’ collections  
■ Businesses pay for the service they actually need  
■ Incentivises businesses to reduce waste as bins lifted on an ‘as needed’ basis | ■ Payment is likely to be needed to be taken in arrears  
■ If businesses don’t have regular lifts then this can cause inefficiency as well as loss of guaranteed income  
■ Care would need to be taken to ensure customers are accurately charged |
| Separate charge for Bin rental | ■ Guaranteed income from bin rental  
■ Opportunity to go ‘rent free’ for recycling services as an added incentive | ■ May be negative perception from businesses that there are extra costs  
■ Some businesses may then wish to use their own bins which may result in issues including compatibility with vehicle lifting mechanisms and manual handling considerations  
■ Important to ensure that the cost of providing bins is captured if separate charges for bin rental are not made |
| Separate charge for Duty of Care administration | ■ Additional income | ■ May be negative perception from businesses that there are extra costs  
■ Businesses may choose to provide their own Waste Transfer Notes  
■ If Duty of Care administration is not charged for separately then this could be used as a marketing message  
■ Important to ensure that administration costs are captured if separate charges are not made |
| Pay by weight | ■ Fair pricing  
■ Incentivises businesses to reduce waste | ■ Requires on-vehicle bin weighing equipment and chipped bins  
■ May be some resistance from existing |
<table>
<thead>
<tr>
<th>Charging method</th>
<th>Benefits</th>
<th>Issues/considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-paid systems: sacks and tape and stickers for cardboard</td>
<td>■ Increases customer satisfaction due to reduced risk of missed collections and transparency of service</td>
<td>■ Payment options e.g. payment could be taken in arrears (although risks bad debt) or payment could be taken in advance and then adjusted based on actual weight in a similar way to utilities but this would require additional administration. ■ Would need to be modelled before implementation to check the effect on overall income.</td>
</tr>
<tr>
<td>Pre-paid systems: sacks and tape and stickers for cardboard</td>
<td>■ Potential benefits to businesses from a cash flow perspective ■ Easy to administer ■ Useful for customers that have limited storage space</td>
<td>■ Lack of guaranteed income ■ Consider where customers can purchase the sacks/tape/stickers ■ May need a minimum collection policy and/or only use this method in urban areas on frequent collection rounds ■ Need to ensure that the sacks/tape/stickers are not easily forged ■ Need for stock control ■ Clear communication of what sized bundles are acceptable for tape and stickers to avoid unmanageable loads ■ Need to monitor sales to verify regular purchases of tape and stickers (temptation to throw cardboard into vehicle untapped).</td>
</tr>
<tr>
<td>Tape</td>
<td>■ Encourages flat packing for increased operational efficiency</td>
<td></td>
</tr>
<tr>
<td>Stickers</td>
<td>■ Allows smaller pieces of cardboard to go inside cardboard boxes which are easier to pick up</td>
<td>■ More effort required by businesses – need to tape/string cardboard</td>
</tr>
<tr>
<td>Sacks</td>
<td>■ Sorting considerations including bag splitting</td>
<td></td>
</tr>
<tr>
<td>Material-based pricing e.g. separate charge for different material streams like food, cardboard, glass etc.</td>
<td>■ Charges reflective of the costs/income from materials and therefore may be deemed as being fairer to the customer and enhance relationships between SMEs and the local authority</td>
<td>■ Administration</td>
</tr>
</tbody>
</table>
5.6.1 Distance-based charging
Some authorities have ‘flat’ charging policies while others have distance-based charging policies to reflect the additional costs of reduced route densities and travelling greater distances to service customers.

**South Hams District Council, Devon**
A commercial collection service for general waste, paper and card, plastic and cans, glass and food waste is available to businesses district-wide. In support of the local economy the council offers collections to businesses in rural areas where other waste management contractors do not offer a service.

The Council has mapped out two charging zones for refuse collections. Zone 1 is classed as the main town centre / economic areas of the district, with Zone 2 located further away from town centres in more rural areas. The price for refuse collections for businesses in Zone 2 is 20% higher than for businesses in Zone 1 to reflect the additional costs of vehicle fuel, maintenance and time to collect from business in more rural locations.

The price of the commercial recycling service is the same throughout the District. Businesses have a choice of using either recycling bins or recycling sacks depending on individual business needs.

Bins are charged per lift one month in arrears, while sacks are charged at the point of purchase. Businesses can also purchase food bin liners at an additional cost to the service with the benefit of a clean bin and minimising odours. These sacks are sold at cost price to encourage their use.

5.6.2 Weight based charging
While disposal costs/gate fees/income from material sales are calculated by weight, the majority of service providers charge by volume. As outlined in table 11, there are a number of benefits with weight based charging, although it clearly relies on a robust weighing system and (particularly for customers that produce ‘heavy’ bins) it may be perceived as potentially expensive and ‘risky’ (businesses may prefer to know what the cost will be). Another option is outlined in the following case study.

**Oxford City Council** provides a mixed dry collection and a food waste collection service to city centre customers. For dry recycling, sacks are available to those who have no room for bins and cardboard is collected in ‘manageable bundles’ identified with stickers. Recycling sacks come in rolls of 25 and have been strengthened in order to hold glass. The council charges £40 for a roll of 25. The recycling labels cost £71.75 for a book of 50 (a small business may use just 1 book per year). Food waste is collected in bins with a selection of liner sizes supplied at cost. The waste and recycling collections are carried out in the morning and evening and food waste is collected every morning 6 days per week.
5.7 Material sales and quality

There are a number of ways that income potential from material sales can be maximised. This is often linked with ensuring high quality materials. As with all considerations, it is important to ensure that the service is designed with the needs of the customer at the heart of your decision-making. The following figure indicates how the potential income from material sales could be maximised.

Figure 7: Considerations for maintaining material quality and maximising income

1. Disposal by customer
   - Source segregated collections
   - Separation of glass from other materials
   - Colour separation of glass
   - Collect higher value material e.g. metals
   - Work with customers to prevent contamination and provide clean materials

2. Collection
   - Compaction levels to ensure material quality
   - Crews to check for contamination

3. Transfer
   - Storage – materials kept clean and dry
   - Bulking – arrangements to consider material quality

4. Processing / material delivery
   - Getting the best deal possible for your materials

It may be useful to view WRAP’s Materials Pricing Report (free subscription service): http://www.wrap.org.uk/content/materials-pricing-report.
5.8 Contracts

Contracts are legally enforceable agreements between two or more parties. Commercial waste and recycling contracts provide details of the service to be provided to the customer and any charges that apply. Key aspects to cover in the contract are:

- Addresses and contact details of both parties (in the case of an SME it should be the address of the owner);
- Agreed service level;
- Provision of collection containers and food waste liners (depending on the service provided);
- Collection frequency;
- Collection procedures e.g. where the container is to be placed;
- Contamination policy and costs;
- Fill limits (of containers) – side waste policy and costs;
- Contract length e.g. minimum six months;
- Termination policy and costs (including notice periods for both the customer and the council and amendment terms);
- Price of service and service charging structure; and
- Invoicing and payment terms.

It is important to ensure that there isn’t a time lag between contracts starting and finishing and collections being made e.g. customers start paying for a service before collections commence, and/or customers still receiving collections after the contract has ended.

Example contracts can be found here for:

- Broxtowe Borough Council
- London Borough of Richmond
- Walsall Council
6.0 Sales and marketing

This chapter focusses on the options available to promote your service and the relative merits of each of them. By the end of this chapter you will understand:
- The different options for promoting your service and their relative impact and cost;
- What tools are available to assist you;
- Ideas for promoting the service to colleagues;
- How to ensure that messaging on promotional material used is easy to understand and engaging;
- The key ingredients for service literature; and
- How else you might support customers to reduce waste and recycle/re-use more.

Communications and marketing are key sales components of a successful commercial recycling collection service because they can:
- Create awareness of and interest in your service;
- Overcome barriers to customer uptake/participation;
- Enable you to address contamination issues; and
- Help build brand loyalty.

A service that is affordable, convenient, reliable, and flexible will attract new customers and retain existing ones. Retention of existing customers and successful recruitment of new ones to an existing or new service depends on their perception of the extent to which the service meets their needs and budget.

While some new custom will be self-generating e.g. through enquiries and word of mouth, it is important to be proactive in sales and marketing, especially when launching a new service. Investing resources in communications to recruit businesses and provide on-going support is crucial but should be proportionate to the size of the collection business i.e. you should only spend what you think you can recover through customer fees.

A useful starting point is to understand the barriers to SME recycling in order to:
- Ensure the service is developed in accordance with business's needs; and
- Assist in marketing the service in order to overcome any perceived issues, especially those which can be overcome with minimal effort.
6.1 Sales and Marketing Strategy

Key elements of a sales and marketing strategy are outlined in the following table.

Table 10: Key elements of a sales and marketing strategy

<table>
<thead>
<tr>
<th>Elements</th>
<th>Tips</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goals and measures</td>
<td>Developing specific, measurable, achievable, realistic and time bound (SMART) aims and objectives; Having arrangements in place to monitor and evaluate the impact of the strategy;</td>
</tr>
<tr>
<td>Key messages</td>
<td>Using a few key messages e.g. why recycle, how to recycle; Marketing new services as part of a package of your service offering; Unique selling points</td>
</tr>
<tr>
<td>Target market</td>
<td>Identifying the target audience e.g. sectors and materials, geographical area, existing customers, new potential customers etc.</td>
</tr>
<tr>
<td>Marketing methods</td>
<td>Consider which marketing methods will yield the highest number of customers in the most cost effective way; How and where will you reach potential customers; Developing communications materials;</td>
</tr>
<tr>
<td>Who will do it?</td>
<td>Having the right officer with appropriate training and experience to manage the sales and marketing function; Role of other departments and organisations to help disseminate messages.</td>
</tr>
<tr>
<td>When/how frequently will it be promoted?</td>
<td>Having a robust timetable for launch including the sales/marketing activities; N.B it is recommended to commence sales and marketing activities two months before service launch; Plan for on-going promotion</td>
</tr>
<tr>
<td>Budget</td>
<td>Ensure that costs are proportionate to the forecasted returns</td>
</tr>
</tbody>
</table>
There are a number of business recycling case studies on the WRAP website detailing the benefits which individual businesses have found from introducing the collection of recyclables in the workplace. These could be useful to help develop key messages as well as using them as an example for potential customers.

6.2 Sales and Marketing Activities

There are several different methods that can be used to recruit businesses, some examples of which, with tips based on the experiences of other local authorities, are listed in this section.

To build up a customer base, a proactive marketing strategy is needed which communicates information about the service in a clear and concise manner to the appropriate target audience. There are two main target audiences:

- **External** - existing and potential customers
  - Can be engaged via a variety of approaches as outlined in the sections below
- **Internal** – council staff e.g. telesales and helpline staff etc. and partner organisations
  - Engaged via internal information provision including newsletter’s, team meetings, briefing notes and via the staff intranet

The success rates of different promotional methods in generating new customers will be dependent on many factors such as the rapport between the customer and sales staff, quality of promotional materials and the perceived quality/value of the service by potential customers. Typical success rates for different approaches, based on the experiences of a number of local authorities, are outlined below.

<table>
<thead>
<tr>
<th>Promotion method</th>
<th>Approximate success rate</th>
<th>Resource intensity</th>
<th>Return on investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face-to-face (existing customers)</td>
<td>50%</td>
<td>High</td>
<td>£</td>
</tr>
<tr>
<td>Phone call</td>
<td>20%</td>
<td>Low</td>
<td>£</td>
</tr>
<tr>
<td>Targeted leaflets</td>
<td>5%</td>
<td></td>
<td>£</td>
</tr>
<tr>
<td>Blind mail shots i.e. mail shots to non-customers</td>
<td>&lt;1%</td>
<td></td>
<td>£</td>
</tr>
</tbody>
</table>

Table 11: Promotional activity vs. success rate, resource intensity and return on investment

Two key factors to bear in mind when planning activities are:

- The level of resource intensity required i.e. how much of people’s time activities take to plan and deliver; and
- The cost per converted business.
The level of resource required decreases moving down this list but so does the rate of return on the investment.

Blanket marketing to all potential customers using telesales, leaflets, advertising and information packs can be expensive and should be avoided as far as possible – always try to target your customers and personalise sales and marketing activities. Sales and marketing efforts should be focussed on a targeted selection of businesses *before* adopting blanket approaches. Evidence from WRAP SME trials showed that blanket approaches are unlikely to be effective in terms of resultant uptake and showed very low success rates. Although some blanket methods are not necessarily costly e.g. leafleting the low take up means that the cost per converted business can be quite high.

The more resource intensive, direct approaches e.g. face to face are likely to be more appropriate for targeted customer groups, existing customers, or once other methods have ‘opened the door’ for further discussion e.g. mailshot followed by a telesales call to arrange a face to face visit.

6.2.1 Face-to-face
This method of promotion is the most time consuming but will generate the largest number of customers. It has the following benefits:

- It provides the opportunity to raise awareness and work out a plan with the businesses, demonstrating how they can reduce or maintain their costs by getting bin sizes, numbers and frequency of collection correct;
- It can help to initiate actions that businesses intend to carry out but never get round to, e.g. signing contracts or ordering recycling containers;
- It provides an opportunity to talk about the problems of contamination in order to address it from the outset;
- It helps businesses to work out internal processes to increase staff participation;
- It helps businesses to work out practical bin storage solutions to increase capture rates;
- It ensures that waste is dealt with legally and reduces the chance of any enforcement action being taken against the business;
- It fosters better working relationships with the business community; and
- It helps in evaluating the effect on collection rounds and obtains feedback on the service and promotional activities.

To increase the success rate of face-to-face visits it may be useful to:

- Pre-warn businesses that you will visiting e.g. through mail shots and/or arranging appointments by telephone;
- Avoid visiting at peak times e.g. lunch time for hospitality sector;
- Arrange appointments with key decision makers; and
- Promote the service at targeted business events e.g. pub-watch, industrial estate and business group meetings, chamber of commerce forums.
6.2.2 Mail Shots
In order to increase the success of mail shots it may be useful to:

- Concentrate on particular districts or postcode areas where there is a concentration of your target audience e.g. office based businesses for a paper recycling service and hospitality businesses for food and glass recycling services;
- Customise literature to specific sectors where possible;
- Follow up mail shots with a phone call, face-to-face visit or both i.e. arrange a time over the phone and then visit the business; and
- Distribute mail shots in batches to allow sufficient time to carry out follow-up telephone calls. Batch size will depend on the size and availability of your sales team. If one of the aims of the follow-up is to set up a face-to-face appointment then smaller batches would be suitable in order to undertake timely visits.

6.2.3 Promotional literature
Ideas include:

- Focussing on a few key messages;
- Ensure contact details are included on literature;
- Using plain English and clearly state what the business benefits are;
- Avoid using terminology like "new", which will make literature out-of-date quickly
- Providing case studies of local businesses that are adopting more resource efficient practices and have saved money through recycling and/or using the WRAP SME case studies. Click here
- Include customer testimonials;
- Use the opportunity to raise awareness of environmental legislation;
- Use the opportunity to promote resource efficient actions - provide tips with clear actions on how to reduce, re-use and recycle;
- Provide bin labels to help increase yield and prevent contamination. This may be particularly useful to overcome potential language barriers amongst the customers staff;

**Oxford City Council** include customer testimonials on their website e.g. "We have a fully commingled recycling facility and Oxford Direct Services has been flexible to fit in extra lifts whenever necessary. (Sometimes even on a Saturday!) Not only have we reduced the amount of our rubbish going to landfill by over 50%, we are also making considerable financial savings! Thanks again!"

- Mimicking householder/consumer campaigns may be beneficial because many SMEs are owned by or employ local residents and messages will therefore be familiar and consistent. Research\(^{24}\) suggests that SMEs respond to environmental communications in the same way that consumers do.

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\(^{24}\) Engaging SMEs – Implications for communications, Brook Lyndhurst May 2010
Template materials are available on the WRAP Recycle Now Partners website. You just need to register (which takes two minutes) by providing your e-mail address. Materials include yes please / no thanks bin labels, promotional posters and service leaflets.

Example signage from Westminster City Council:

Yes please  ✔
- Meat, fish and bones cooked or uncooked
- Eggs and all dairy products
- Vegetables and Fruit
- Bread, cake and pastries
- Rice, pasta and beans
- Tea and coffee grounds

No thanks  ❌
- Plastic (including plastic bags)
- Packaging
- Metal or glass
- Liquids
- Anything which isn’t food
- Fats, Oils and Grease
6.2.4 Advertising and promoting
Other tips for advertising and promoting the service are:
- Update the authority’s website with details of the new service and if appropriate provide the means to register for it / further information online;
- Use the sides of vehicles to promote the service. An additional benefit to this is it presents a professional image of the service.

6.2.5 Website / Social Media
Passive approaches, such as relying on information available on the authority’s website, are not advisable as a sole means of marketing a service. Only the more ‘environmentally-conscious’ organisations are likely to actively investigate the available options for recycling collections, and even these may find that websites provide limited information. Service information however should also be available on the authority’s website.

It is recommended to have website information peer reviewed to ensure it is easy to navigate and to understand. There are opportunities on websites to provide businesses with additional information, for example tips to prevent waste and signposting to specialist service providers for materials that you do not collect, as well as re-use and third sector organisations.

6.2.6 Networks
To gain the most from using existing networks it is likely to be beneficial to:
- Ensure that all members of the waste/helpline/customer services teams are aware of the new service – a survey of all English local authorities in February 2010 revealed that a number of staff within waste departments were not aware of the waste services their authority provided to businesses;
- Inform other council departments, officers and partners of the new service – particularly those who are concerned with ensuring Duty of Care legislation is followed e.g. Customer Care, Environmental Health, Trading Standards, Waste Disposal Authority and the Environment Agency;
- Engage existing business networks/organisations such as Chambers of Commerce, Business Links, Business Improvement Districts, Local Enterprise Partnerships, industrial estates etc. to raise awareness of the new service; and
- Establish links with community sector organisations and others who may be able to provide specialist recycling activities such as paper shredding (confidential waste), or office furniture reuse.

6.2.7 Promotional staff
It is most effective to have dedicated full-time members of staff to undertake sales and marketing activities. **Staff should be motivated and enthusiastic, ideally with strong sales experience combined with knowledge of waste/recycling collections.** The cost and environmental benefits of recycling for SMEs should be emphasised as a key selling point. In
addition, it is important for staff to be fully aware of key waste legislation including Duty of Care and the Waste Regulations 2011 / 2012.

The number of staff needed will vary depending on the scope and the size of the service e.g. whether it is being provided to some or all of the authority’s customers, or to all SMEs in the area. Whatever strategy is adopted, staff will need to receive adequate training to be confident and professional in dealing with enquiries.

6.3 Messaging
The core elements of your service which need to be communicated to customers are price, convenience, reliability and flexibility. Other issues which customers may find important include:

- Final destination of material – to provide reassurance that materials are being recycled and, if residual waste is being treated, then some councils can (and are) using ‘zero waste to landfill’ as part of their marketing strategy.
- Environmental indicators such as percentage recycled or carbon footprint etc. - some larger organisations are now looking at what environmental data can be provided by a service provider so that they can meet their internal Key Performance Indicators.

6.4 Branding
As mentioned previously, mimicking householder/consumer campaigns may be beneficial because many SMEs are owned by or employ local residents and the branding and messages will therefore be familiar and consistent. Research\(^{25}\) suggests that SMEs respond to environmental communications in the same way that consumers do.

There are recycling campaigns in all four UK nations and it is advisable for local authorities to use the appropriate national recycling campaign branding. There is a wide range of logos, material stream icons and fully editable artwork available to download from [http://partners.wrap.org.uk/](http://partners.wrap.org.uk/)

An example of the template material for business recycling collectors and their customers available on Recycle Now Partners:

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\(^{25}\) Engaging SMEs – Implications for communications, Brook Lyndhurst May 2010
6.5 Marketing and promotional costs
Estimates of marketing costs range from as low as £30 per customer, to more than £2,000 per customer\(^\text{26}\) and to some degree the level of costs incurred depends on an authority’s starting point. Authorities who already operate services to businesses should incur lower marketing costs. There is no agreed average cost for recruiting an additional customer to a service. Costs for the recruitment of customers to a commercial dry recycling service may be lower than for food waste due to the resource intensity needed to:

- Have a firm understanding of the quantity of different waste/recycling streams in order to re-configure the size of bins and/or frequency of collections
- Consider internal bins and liners
- Overcome barriers (perceived or otherwise) to food recycling

As a guide, the total marketing cost for a commercial food waste collection service is likely to be of the order £150 per recruited customer based on the following:

- £80 per customer to cover promotional materials, cold-calling and setting-up visits with potential customers; and
- £70 per customer to cover follow-up visits to potential customers, some of which will and will not take up the service, to provide further information on the service and to advise on set-up, type and use of containers (internal and external), use of liners, etc. and then to deal with any subsequent set-up enquiries. (Cost based on £30,000 per annum for the cost of employment of a trade waste officer and 3.5 hours per customer visit).

Whilst £150 per recruited customer might not be the lowest cost achievable, it is likely to be at the more favourable end of the range of marketing costs per recruited customer. If, for example, the separate collection of food waste was to become mandatory (as is the case in Scotland), the demand for services will rise and as a result the average cost of recruiting a new customer could be expected to drop. It is also worth noting, that if existing staff are used rather than recruiting additional resources then it is easier to absorb these costs.

6.6 Business resource efficiency
A survey conducted in 2009 by Netregs\(^\text{27}\) highlights that waste management providers and local authorities are the most likely organisations to be contacted by SMEs about environmental queries.

In addition to these “proactive” enquiries, waste management service providers are in a prime position to encourage businesses to be more resource efficient when talking to them about their waste management needs. A number of options and tools are available including:

- Providing waste audits/analysis to understand where and why particular wastes are arising and how they might prevent and reduce them e.g.
- Signposting to the Recycle Now website where there are a number of tools and guides for small businesses www.recyclenow.org.uk;

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\(^{26}\) ‘Collecting food waste from small businesses and schools’, WRAP 2010.

\(^{27}\) Netregs SME-environment Survey 2009: England
■ Providing localised information and tips on how to reduce, reuse and recycle e.g. City of London runs a Clean City awards scheme and has environmental best practice meetings for businesses in their area.

■ Template materials such as a business resource efficiency pack which your organisation can download, adapt and brand as you like e.g. Belfast City Council has adapted these template materials;

■ Considering re-use of business resources. This may include partnering with third sector organisations or simply signposting to local re-use schemes e.g. The Oxfordshire Waste Partnership developed an online waste exchange for local businesses and the London Borough of Haringey and the Somerset Waste Partnership signpost businesses to local re-use organisations.
7.0 Monitoring and improvement

This chapter of the guide looks at how your service is performing. By the end of this chapter you will understand:
- Why it’s important to monitor and evaluate your service;
- What and how to monitor; and
- The importance of monitoring and evaluation to continuous improvement and developing your service further.

Monitoring performance and evaluating the data collected should be an integral part of your service. The figure below provides an overview of the steps required to develop a monitoring system.

Figure 8: Developing a monitoring system

Readers may find it useful to view WRAP’s guidance on monitoring and evaluating household recycling services, much of which is applicable to commercial recycling services.
The following table provides a summary of the elements of the service that should be monitored and evaluated so that progress and performance can be measured.

Table 12: Service areas for monitoring and evaluation

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit and loss</td>
<td>Ensure service is breaking even at minimum</td>
<td>Clear accounting</td>
<td>Monthly</td>
</tr>
<tr>
<td>Costs of delivering the</td>
<td>Ensure debt is managed</td>
<td>Debtors list</td>
<td></td>
</tr>
<tr>
<td>service</td>
<td>Ensure you are getting best deal possible for the sale of materials</td>
<td>Compare material sales prices with the market</td>
<td></td>
</tr>
<tr>
<td>Charges</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Material sales prices/income</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and gate fees</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Debtors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>If the profit and loss account is showing a negative trend it will be necessary to undertake a service review.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Residual waste and recycling material tonnages

- Better understand performance
- Budgetary information
- Calculate recycling rate
- Monitor fluctuations e.g. seasonality
- Changes to quantities of the various materials being collected

- Weighbridge
- Commercial waste apportionment tool if co-collecting household and commercial waste/recycling

Monthly

Residual waste composition

- Identify new materials to target
- Work with customers to increase staff participation

- Compositional analysis
- Crews observations

Annual / every two years

Quality / contamination

- Financial

- Feedback from re-processors
- Visual

On-going
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Customer numbers</strong> – absolute and relative to residual</td>
<td>■ Check if the business is growing or shrinking</td>
<td>■ Contracts database</td>
<td>■ Quarterly</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ Before and after marketing campaigns</td>
<td></td>
</tr>
<tr>
<td><strong>Customer satisfaction</strong></td>
<td>■ To ensure service remains competitive</td>
<td>■ Surveys: on-line, by email, through the post or hand delivered for face to face interviews</td>
<td>■ Quarterly</td>
</tr>
<tr>
<td></td>
<td>■ Protect reputation</td>
<td>■ Comments, compliments and complaints system e.g. form on website, capture feedback from crews etc.</td>
<td>■ On-going</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ Focus groups</td>
<td></td>
</tr>
<tr>
<td><strong>Reasons for lost customers</strong></td>
<td>■ Understand where business model might need to be changed / sales/marketing adjusted</td>
<td>■ Contracts ■ Customer follow-up survey – telephone</td>
<td>■ On-going</td>
</tr>
<tr>
<td><strong>Customer sector</strong></td>
<td>■ Marketing purposes</td>
<td>■ Customer sign up process</td>
<td>■ On-going</td>
</tr>
<tr>
<td><strong>Individual customer needs</strong></td>
<td>■ Maximise income ■ Customer retention ■ Health and safety / street scene</td>
<td>■ Ask for feedback from customers ■ Crews</td>
<td>■ On-going</td>
</tr>
<tr>
<td><strong>Sales and Marketing</strong></td>
<td>■ Impact of campaigns</td>
<td>■ Tonnages and customer numbers ■ Customer sign up process i.e. asking where they have heard about the service</td>
<td>■ Pre and post campaigns</td>
</tr>
</tbody>
</table>
---|---|---|---
Health and safety | Statutory | Health and safety process | Monthly
Fly tipping | Impact on fly tipping | Flycapture | Quarterly
Impact on your commercial waste/recycling drop off services | Income projection, Pricing strategy | Tonnages and income for those services | Quarterly
Changes in law/regs | Ensure you and customers are law abiding, Competitive edge | Environment Agency/Defra / CIWM | On-going
Competition | Remain competitive | Pricing, Surveys | On-going, Annually
Route optimisation and capacity | Reduce operating costs, Maximise potential income, Add new collection rounds or materials, Increase capacity from existing customers | Feedback from crews, including number of loaders and contribution of drivers to loading, Timings, Vehicles, Specialist advice, In-house planning | On-going / annually

7.1 Continual improvement
With stiff competition in the commercial marketplace and pressures to deliver efficiencies it is important that authorities strive to continually improve their service performance.

Keeping abreast of your customers’ needs will allow you to adapt your service to meet market demands. It will also allow you to provide a flexible offering and consider added value low cost services e.g. ink cartridge recycling and business resource efficiency advice.

Should you detect major changes in the market or there is a negative trend in your financial profile then it’s worth reviewing the entire business plan loop again and follow the assessment for each stage. This may be considered a lengthy approach but it will allow you to explore all the service options available to you before making substantial service changes.

A commercial recycling service needs to remain flexible to be able to adapt to a rapidly changing market and ensure that the service continually meets the demands of its business customers.
8.0 The Business Recycling and Waste Services Commitment

The Business Recycling and Waste Services Commitment was developed by Defra in conjunction with the Local Government Association and the Federation of Small Businesses. The commitment sets out in plain English 12 principles which should underlie a business recycling and waste service. It offers the opportunity to demonstrate to customers your commitment to:

- Making recycling easy;
- Providing value for money;
- Consulting on and clearly communicating services;
- Reducing waste to landfill.

You can sign up to all or some of the principles, and can do so even if you don't directly provide recycling and waste services. You can edit the commitment and adopt a bespoke version that reflects your local circumstances. The principles are about:

- Reliable and regular collections;
- Collection services tailored to meet the needs of your customers;
- Clear information about your recycling service;
- Providing access to household waste and recycling centres for businesses;
- Contracts managed by following the principles of best practice;
- Reasonable and clear fees;
- Guidance for businesses on responsibilities for waste management;
- Providing a directory of local waste and recycling services;
- Helping businesses to donate unwanted items for reuse or buying quality second-hand products;
- Sensible approaches to enforcement;
- Providing easy ways to gather feedback; and
- A commitment to continuous improvement.

If you would like more information and for details on how to sign up, please visit: www.wrap.org.uk/labusinesscommitment
9.0  Project Plan Checklist

Below is a non-exhausted list, of things you might want to include on a checklist.

<table>
<thead>
<tr>
<th>Commercial recycling collections service project plan</th>
<th>Yes/No/Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔  Business case developed (drivers outlined)</td>
<td></td>
</tr>
<tr>
<td>✔  Initial political and Director sign off</td>
<td></td>
</tr>
<tr>
<td>✔  Working group established (financial and health and safety team involvement)</td>
<td></td>
</tr>
<tr>
<td>✔  Opportunities for (new services) identified</td>
<td></td>
</tr>
<tr>
<td>✔  Threats/risks outlined. And plan for mitigation made</td>
<td></td>
</tr>
<tr>
<td>✔  Local demand identified</td>
<td></td>
</tr>
<tr>
<td>✔  Materials to be collected decided</td>
<td></td>
</tr>
<tr>
<td>✔  Scope (size) of service identified</td>
<td></td>
</tr>
<tr>
<td>✔  Materials quantity estimated</td>
<td></td>
</tr>
<tr>
<td>✔  Health and safety reviewed (throughout the process)</td>
<td></td>
</tr>
<tr>
<td>✔  Collection rounds identified (e.g. co-collected, dedicated rounds)</td>
<td></td>
</tr>
<tr>
<td>✔  Collection frequency and timing decided</td>
<td></td>
</tr>
<tr>
<td>✔  Material transfer and treatment considered including profits from sale of materials</td>
<td></td>
</tr>
<tr>
<td>✔  Containment considered and orders placed</td>
<td></td>
</tr>
<tr>
<td>✔  Vehicles confirmed (existing / trial / new / retrofit of any equipment – on board weighing)</td>
<td></td>
</tr>
<tr>
<td>✔  Resource requirement considered for each job role in the service</td>
<td></td>
</tr>
<tr>
<td>✔  (administration and call centre to sales team and operations)</td>
<td></td>
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<tr>
<td>✔  Staff training needs identified and actioned</td>
<td></td>
</tr>
<tr>
<td>✔  Costs understood and accounting system in place</td>
<td></td>
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<tr>
<td>✔  Estimated income calculated</td>
<td></td>
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<tr>
<td>✔  Charging structures agreed</td>
<td></td>
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<tr>
<td>✔  Debt management and contracts developed</td>
<td></td>
</tr>
<tr>
<td>✔  Sales and marketing strategy developed</td>
<td></td>
</tr>
<tr>
<td>✔  Marketing materials developed and website updated</td>
<td></td>
</tr>
<tr>
<td>✔  Monitoring and evaluation key performance indicators developed</td>
<td></td>
</tr>
<tr>
<td>✔  Scheme launch checklist finalised and timetable confirmed</td>
<td></td>
</tr>
<tr>
<td>✔  Meeting dates set for service review meetings</td>
<td></td>
</tr>
</tbody>
</table>
10.0 Appendix 1 –Key legislation

10.1.1 England and Wales

**Environmental Permitting Regulations 2010 - as amended in 2011 and 2012**

The Environmental Permitting Regulations 2010\(^{28}\) replaced the amended 2007 Regulations, which combined several different permitting regimes into one set of regulations. These include the **Pre-treatment Regulations**. The 2007 Regulations imposed the requirement that all waste must be pre-treated before it is disposed of in landfill. According to the Environment Agency, a process can be deemed as treatment if it meets the ‘three point test’:

- It must be a physical, chemical, thermal or biological process;
- It must alter the nature or characteristics of the waste; and
- It must result in reducing its volume, hazardous nature, facilitate its handling or enhancing its recovery.

Segregating materials for recycling is deemed as ‘treatment’, however compaction is not. It will be natural for businesses to look to providers of residual waste services, including local authorities, for support to meet the pre-treatment requirements.

The Environmental Permitting (England and Wales) (Amendment) Regulations 2011\(^{29}\) and 2012\(^{30}\) amended some of the requirements for environmental permits and exemptions.

**The Waste (England and Wales) Regulations 2011 - as amended in 2012**

The Waste (England and Wales) Regulations 2011\(^{31}\) implement requirements of the revised Waste Framework Directive (2008/98/EC) into English and Welsh law. The following requirements are included:

- According to Part 5 of the Regulations, anyone who produces, collects, transports, recovers or disposes of waste must implement the **waste hierarchy**. Regulation 12 states that producers of waste and collectors of that waste must take all reasonable measures to apply the waste hierarchy. Businesses will, as part of their Duty of Care, need to include a declaration on waste transfer notes to confirm that they have applied the waste hierarchy. Guidance is available to businesses at http://wastehierarchy.wrap.org.uk/.

**Figure 9: The Waste Hierarchy**

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From 1 January 2015, anyone who collects paper, metal, plastic or glass waste must ensure that those materials are collected separately from the rest of the waste stream and that they remain separate from other waste and material with different properties.

Under Part 8 of the Regulations, the waste carrier registration system is divided into two tiers. Upper tier carriers include collection and disposal authorities, professional carriers and construction and demolition waste carriers, while the lower tier includes waste producers that regularly transport their own waste.

Under Part 9 of the Regulations – Any waste transfer must be accompanied by a waste transfer note. According to these regulations, the note has to include a declaration that the previous holder has implemented the waste hierarchy. The Standard Industrial Classification (SIC) code for the waste producer must also be included. A list of codes can be found here: www.ons.gov.uk

The Waste (England and Wales) (Amendment) Regulations 2012 strengthened and clarified the requirement for separate collection of paper, metal, glass and plastic. Local authorities collecting those materials must, where technically, environmentally and economically practicable, ensure that they make arrangements for the separate collection of those materials.

Waste (Wales) Measure 2010
The Waste (Wales) Measure 2010 sets out the recycling targets for municipal solid waste in Wales at 52% by 2012-13 and 70% by 2024-25.

The Controlled Waste (England and Wales) Regulations 2012
These Regulations replace the 1992 Regulations in England and Wales. Local authorities may charge for the collection and disposal of waste from certain commercial activities, as listed in Schedule 1. This includes composite hereditament properties.

The Hazardous Waste (England and Wales) Regulations 2005
The Hazardous Waste Regulations 2005 cover the handling, movement and disposal of hazardous waste in England and Wales. Wastes defined as hazardous are marked with an asterisk in the List of Wastes/European Waste Catalogue. These can include wastes that occur as part of

regular business activities such as fluorescent tubes, LCD screens and laptops and mineral oils. The List of Wastes (LOW) Regulations 2005 transpose the European Waste Catalogue (EWC) into English legislation and provide codes for all hazardous and non-hazardous wastes, while the Environment Agency’s Technical Guidance WM2 provides detailed information on whether a waste should be classed as hazardous.

Hazardous waste producers of more than 500Kg per year are required to register their premises with the Environment Agency. Once registered, producers will receive a premises code that should be used on all waste consignment notes. Consignment notes are required for all movements of hazardous waste even from exempt premises. The applicable hazard codes, EWC codes and description of the waste, along with the details of the waste producer, SIC and premises codes, carrier and consignee details should be included in the consignment note. Consignees must submit quarterly returns to the Environment Agency and waste producers.

The mixing of hazardous wastes with non-hazardous waste or hazardous waste of a different category is banned without an environmental permit or a registered exemption. The ban includes mixing by waste producers.

The Waste (England and Wales) Regulations 2011 amended the Hazardous Waste 2005 Regulations to include the waste hierarchy declaration in consignment notes and the new hazardous properties from Annex III of the rWFD. They also made some changes to the multiple collection rounds system.

**WEEE Regulations 2006**

The Waste Electrical and Electronic Equipment (WEEE) Regulations 2006\(^36\) cover the whole of the UK. Producers of electrical and electronic equipment (including manufacturers, importers and sellers) are responsible for the cost associated with collecting, treating and recycling or disposing of this equipment when it becomes waste (WEEE). Distributor take-back schemes can be used to comply with these requirements. Approved treatment or reprocessing facilities must provide evidence to producers on the amount of WEEE received for processing. WEEE recovery and recycling targets ranging from 50% to 80% are also included in these regulations but only apply to the fraction of WEEE collected separately. They were amended by the 2009 regulations\(^37\).

**The Animal By-Products Regulations 2005**

The Animal By-Products Regulations 2005\(^38\) cover all businesses generating, handling and disposing of animal by-products such as raw meat not intended for human consumption, including food manufacturers and retailers. However, catering wastes (such as waste from kitchens and restaurants) are only subject to these regulations if they are destined for composting, AD or for feeding to animals. Recycling facilities such as composting, AD and pet food plants can only accept Category 3 ABPs or Category 2 under very specific conditions. The 2011 Regulations for England\(^39\) and Wales\(^40\) introduced a more risk-proportionate approach to controls on ABPs.

**10.1.2 Scotland**

**Special Waste Regulations 2004 - as amended by the Waste (Scotland) Regulations 2011**

The Special Waste Scotland (Amendment) Regulations 2004\(^{41}\) introduced the requirement for special waste producers to notify the appropriate authorities and pay a fee for the removal of their special waste. Consignment notes are required for the transport of any such waste.

**Animal By-Products (Scotland) Regulations 2003 – as amended in 2009**
The Animal By-Products (Enforcement) (Scotland) Regulations 2011\(^{42}\) cover the enforcement of the ABP Regulations 2003\(^{43}\) in Scotland.

**Waste Management Licensing Regulations 2011**
The Waste Management Licensing Regulations\(^ {44}\) impose the revised Waste Framework Directive’s requirement for waste disposal and recovery activities to operate under a permit into Scottish law. Exemptions to facilitate the recovery or recycling of waste are also provided.

**The Waste (Scotland) Regulations 2011**
These regulations\(^ {45}\) introduced the requirement to include a declaration that the previous holder has abided by the waste hierarchy in waste transfer notes, while they also amended the Special Waste Regulations to include the new hazardous properties from Annex III of the rWFD.

**The Waste (Scotland) Regulations 2012**
Also known as the Zero Waste Regulations\(^ {46}\), these impose bans on the types of wastes permitted into landfills. They also introduce the requirement for separate collections of key recyclables, including food waste. Moreover, they require that only wastes that cannot be recovered in another way are sent to Energy from Waste facilities.

Table 13: Timetable for the different provisions of the regulations

<table>
<thead>
<tr>
<th>Source segregation</th>
<th>January 2014</th>
<th>January 2016</th>
<th>January 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ All businesses to present their dry recyclables separately for collection.</td>
<td>▪ Businesses producing over 5kg of food waste per week to present those separately for collection (except those in rural areas).</td>
<td>▪ Local authorities to finalise roll out of food waste collections.</td>
<td></td>
</tr>
<tr>
<td>▪ Businesses producing over 50kg of food waste per week to present those separately for collection (except those in rural areas).</td>
<td>▪ Businesses undertaking the preparation and serving of food (including canteens and schools) to ensure the separate collection of food waste.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ Local authorities to offer a dry recyclables collection service and begin roll out of food waste collections.</td>
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</tbody>
</table>

\(^{46}\) http://www.legislation.gov.uk/sdsi/2012/9780111016657/contents
In Highland Council, any customer using the residual waste collection service, must also recycle – either through the recycling collection service, or free of charge at the Council’s HWRC’s and Recycling Points. Their website states:

“As a customer of the Highland Council, you are entitled to recycle the same amount as your contracted bin capacity at any of our Recycling Points or Recycling Centres free of charge. All you need to do is ensure you carry your Waste Transfer Note (you will receive this once your contract has been processed) with you.

**Recycling Centres:** use them for cardboard, plastic bottles, paper, tins and cans, garden waste, glass, textiles, wood and scrap metal.

**Items such as fixtures, fittings, furniture and electrical equipment will not be accepted.**

**Recycling Points:** use them for paper, glass, textiles, tins and cans.

**Please note you are not permitted to take commercial refuse to these sites.**  

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### Northern Ireland

#### The Waste Contaminated Land (Northern Ireland) Order 1997

These regulations outline the obligation for district councils to arrange for the collection of commercial waste if requested to do so. It also includes provisions around waste management licenses, containment and fixed penalty notices.

#### The Waste Regulations (Northern Ireland) 2011

The requirements of rWFD are transposed into Northern Ireland’s law by the Waste Regulations (Northern Ireland) 2011\(^7\). They introduce a duty on waste operators to comply with the waste hierarchy. They also introduce the requirement, from January 2015, for separate collections of plastic, paper, metal and glass, where technically, environmentally and economically practicable. Co-mingled collections are regarded as separate. The Regulation\(^5\) also encourages the separate collection of waste oils.

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The Hazardous Waste Regulations (Northern Ireland) 2005

These regulations\(^{48}\) implement the Hazardous Waste Directive (Directive 91/689/EC) in Northern Ireland. Hazardous wastes are defined as those set out in the List of Wastes (Northern Ireland) Regulations 2005. Consignment notes must accompany any movement of hazardous waste and consignees are required to provide producers, holders or consignors with a return or a copy of the consignment note.

The Regulations were amended by the Waste Regulations (Northern Ireland) 2011 to: ban the mixing of hazardous waste without a permit; introduce a new hazardous property (H13 sensitizing); and amend consignment notes to include a declaration that the waste hierarchy has been applied.

Animal By-Products (Northern Ireland) Regulations 2003

These Regulations\(^{49}\) control the collection, handling, transport and disposal in Northern Ireland of animal by-products not intended for human consumption. They are enforced by the Animal By-Products (Enforcement) Regulations (Northern Ireland) 2011\(^{50}\).

\(^{48}\) http://www.legislation.gov.uk/nisr/2005/300/made
\(^{50}\) http://www.legislation.gov.uk/nisr/2011/124/contents/made
11.0 Appendix 2 – Example sales and marketing literature

11.1.1 Leaflet from Bexley Council

Business Waste & Recycling

Bexley’s Business Waste and Recycling Team is always available to help you choose a waste and recycling package that really works for your business. We can also help your business identify the best ways to reduce waste costs and recycle more. We offer:

- £ competitive prices, fixed for 12 months on 1st April, and 0% VAT
- FREE advice on how to save up to 37% of your waste costs by recycling (and free recycling container hire)
- help in understanding and meeting your Duty of Care
- a local service for quick, reliable and efficient response

Contact us today:
www.bexley.gov.uk/businesswaste
01322 297570 or 01322 297566
btzwaste.bexley@serco.com

Remember that business rates do not cover commercial waste and recycling collections, so it is important that your business has a waste and recycling service set up in order to comply with your Duty of Care. Did you know that recycling your waste can save your business money?

Boosting your Business in Bexley
FREE business advice event 22 May 2012
Mortlake Hotel, Bexleyheath
- All-day Q&A
- Interactive sessions
- Specialist speakers (and more)
www.bexley.gov.uk/22may

If you would like the information in this leaflet in a different format, please call 020 8300 7777 and ask for Communications/Graphics. The reference to quote is ES4622.3312
11.1.2 Reading Borough Council leaflet
This leaflet used by Reading Borough Council provides potential customers with an easy to use visual guide to the size of container they might need compared to how many sacks of waste they currently produce. On the front cover it emphasises some of the benefits to business (e.g. no VAT, no hidden costs etc.).
11.1.3 Northumberland County Council

Because the geographic area of Northumberland is so large, the service is ‘zoned’ with the map provided in their literature making this easy to understand. Owing to many tourist businesses, they have targeted caravan parks and holiday accommodation.
11.1.4 Cardiff Council Food Waste Poster

The poster below highlights to customer’s staff what should and should not go in food waste collection containers. The poster on the right is downloadable from the Cardiff Council website and accompanies useful information on the services available to businesses.