

Erratum

This amends the text provided in 3.40, page 41; where Kerry is replaced by Monaghan and the residual waste percentage is changed from 57% to 55%.

Section 3.40 is now as follows:

The CCPC analysed the 2016 data from the operator questionnaire which was undertaken as part of this study, in relation to Donegal, Monaghan and Mayo households (which have low brown bin coverage) as against Dún Laoghaire-Rathdown (with 50% brown bin coverage). These counties' presentation of residual waste is 55% higher than Dún Laoghaire-Rathdown. The presentation of organic waste and recyclate material is less in these counties than in Dún Laoghaire-Rathdown.

The Operation of the Household Waste Collection Market

28 September 2018

Table of contents

1. Introduction	3
Background	3
Scope of this study	4
Methodology	6
Structure	7
2. Market structure	8
Economics of household waste collection	10
Overview	10
Economies of density and scale	11
Market structure and cost	12
Consolidation	14
Competition in the household waste collection market	15
Barriers to entry	19
Strategic barriers to entry	20
Key findings	22
3. Regulation and enforcement	24
International regulation	24
Irish household waste regulatory policy	28
Policy actions	32
Regulatory framework	34
Regulation and enforcement structure	38
Provision of brown bins to households	39
Role of competition law in the waste sector	41
Key findings	43
4. The consumer perspective	45
Household charges	45
Market participation	47
Switching	49
Consumer contracts	50
Customer service	52
Key findings	53
5. Conclusions and recommendations	55
Introduction	55
Identified issues	55

Recommendations	65
6. Appendices.....	
A. Terms of reference	
B. Econometric report.....	
C. Public consultation responses.....	
D. Waste Management (Collection Permit) (Amendment) Regulations 2015: Schedule Six.....	
E. Results of consumer market research.....	

1. Introduction

Background

- 1.1 Waste collection may, at first sight, appear to be a straightforward utility service but on closer analysis, as highlighted in this study, it is comprised of a set of very complex and geographically distinct markets where State, commercial and consumer interests continually overlap and often conflict with each other.
- 1.2 In Ireland, price and service levels for the collection of waste from households are determined by private operators. Subject to licensing, waste operators can offer their services in any location of the country, with the decision to enter an area being based on commercial considerations, and therefore it is possible for more than one operator to provide services in a given area. This type of market structure is often referred to as “side-by-side” competition.
- 1.3 The side-by-side market structure in place in Ireland is atypical among other European States. It gradually emerged after 1983, when local authorities began charging for household waste collection. Private sector involvement was encouraged by Government policy in 1998, in a document entitled, “Waste Management - Changing our Ways”, as a method of meeting national waste objectives. The entry of the private sector was accelerated by decisions of local authorities to exit the household waste collection market. The side-by-side market structure was endorsed in the Department of the Environment, Community and Local Government’s 2012 Policy document, “A Resource Opportunity - Waste Management Policy in Ireland”. The operation of household waste collection is now the responsibility of the private sector, with State involvement mainly focused on issuing and managing waste licences¹ and the roll out and enforcement of environmental regulations.
- 1.4 Within the current market structure, private operators assume ownership of waste and transport it to the treatment facility of their choice, subject to environmental conditions

¹ The National Waste Collection Permit Office (NWCPO) has been in operation since 1 February 2012. Its role is to accept and process all new waste collection permits and review waste collection permit applications for all waste management regions in Ireland.

being met. This has important implications for the State's ability to direct how and where waste should be treated, and for the levers available to influence operators to achieve national environmental goals.

Scope of this study

- 1.5 On 27 June 2017, in order to work towards environmental waste targets, the Government decided to introduce an incentivised charging system for households which would require the phasing out of “all-in flat rate” charging. The press statement² referenced an increasing reliance on landfill, stating “It is important to act now to encourage waste reduction to avert a return to an over-dependence on landfill. An incentivised pricing structure for household waste collection is an important measure in this regard”.
- 1.6 In the context of a subsequent debate on the above proposals, Dáil Éireann passed a motion on 4 July 2017 calling on the Minister for Communications, Climate Action and Environment to ask the Competition and Consumer Protection Commission (the CCPC):

“to report on the operation of the household waste collection market in order to inform the development of national waste management policy before year end, which will provide an evidence base to establish a regulator to prevent price gouging.”
- 1.7 Under Section 10 (4) of the Competition and Consumer Protection Act 2014, only the Minister for Business, Enterprise and Innovation may request the CCPC to carry out a study or analysis and on 25 September 2017, An Tánaiste and Minister for Business, Enterprise and Innovation, formally requested that the CCPC carry out such a study.
- 1.8 From the CCPC's point of view, it is important to stress the distinction between a market study and identification of possible competition law breaches, the latter which were referenced in the request received by An Tánaiste and Minister for Business, Enterprise and Innovation, from the Department of Communications, Climate Action and Environment (DCCAE). Market studies are separate from investigations and are designed to analyse issues

² <https://www.dccae.gov.ie/en-ie/news-and-media/press-releases/Pages/Household-Waste-Collection-Charging-Arrangements.aspx>

in markets that lie outside breaches of competition or consumer law, the investigation of which must follow strict internal processes.

- 1.9 In order to undertake the study in accordance with its remit and in a timely manner, the CCPC completed a scoping exercise and developed Terms of Reference (TOR) which are set out in Appendix A. In summary, the TOR set out that the study would assess the nature and scale of household and operator issues in the household waste collection market; consider if the introduction of an enhanced regulatory regime could efficiently address these issues in the short and long term and make recommendations, as appropriate.
- 1.10 The availability of data was highlighted by the CCPC as a key dependency for the economic assessment exercise. The economic assessment in this study is based on the data available, which is mainly at local authority level. However, it should be noted that if more substantive analysis is to be carried out in the future, it would require more granular household and route data, which is currently not readily available.
- 1.11 The purpose of a market study is to assess how a market is working from a competition and consumer protection perspective. Such studies assess business and consumer behaviour in the context of the market characteristics, and the wider regulatory and economic environment. Study findings inform proposals and recommendations to address any issues that are identified.
- 1.12 The focus of this study is the household waste collection sector. Waste collection from apartment complexes was not examined in the context of the study as this is considered by operators to be a separate business operation, due to its cost structures, and more akin to the commercial waste collection market. In apartment complexes, waste is usually deposited in central waste bins. This centralised waste is collected by a waste operator on the basis of a contract entered into with the apartment complex's management company that arranges the service for the apartment complex as a whole. Therefore, in contrast to individual houses, with their own identified bins, waste from individual apartments cannot, in the main, be weighed or charged on the basis of weight.

Methodology

1.13 In order to ensure that the CCPC adequately captured the relevant consumer and competition issues in the household waste collection market; and to facilitate the formation of evidence-based policy recommendations, the CCPC carried out the following research and analytical steps:

- Conducted a public consultation process on key market issues covering competition, operational barriers to entry, market coverage, waiver of waste collection charges, landfill and incinerator capacity; and the regulatory environment
- Completed in-depth interviews with public sector bodies with a remit in the sector, individual operators, industry representative groups and academics
- Commissioned Professor Patrick Paul Walsh, Professor of International Development Studies at University College Dublin, to conduct detailed econometric analysis of the household waste collection market in the State
- Developed a questionnaire that was issued to 44 household waste collection operators in 11 local authority areas in the State³
- Using the European Competition Network⁴, sent detailed questionnaires to competition authorities in other Member States
- Carried out market research⁵ to ascertain the views and behaviours of consumers
- Reviewed previous CCPC⁶ engagement with the sector
- Carried out extensive desk-based research to consider international best practice for the regulation of utility markets, to identify relevant competition and consumer issues and to assess the evolution of the household waste collection market.

³ The CCPC selected local authority areas from both rural and urban areas which had a sufficient degree of variation (from a statistical perspective) in key variables such as the level of competition, density and scale of households.

⁴ The European Commission and the national competition authorities in all EU Member States cooperate with each other through the European Competition Network.

⁵ Completed by Behaviour & Attitudes on behalf of the CCPC.

⁶ This also included the engagement of the CCPC legacy organisations - the Competition Authority and the National Consumer Agency.



- 1.14 The CCPC has engaged with and is grateful for the assistance of and input from officials from DCCAE, a range of public sector stakeholders with a role in the household waste sector, waste operators, industry representatives and academics.

Structure

- 1.15 The remainder of this report is structured as follows:
- **Chapter 2** presents an overview of the household waste collection market structure, including its primary economic characteristics and a comprehensive review of competition in the sector
 - **Chapter 3** provides an overview of regulation and enforcement in the household waste collection sector and draws on an analysis of regulatory policy in Ireland and other European countries
 - **Chapter 4** provides an overview of consumers' experience in the household waste collection sector, and details participation rates, switching rates and reported customer service issues
 - **Chapter 5** considers the study's findings and research and outlines the rationale for the recommendations made
 - **Appendices A to E** contains further background detail which includes:
 - Terms of reference
 - Econometric report on competition in the household waste collection market
 - Summary of responses to the CCPC's consultation process
 - Schedule 6 of the Waste Management (Collection Permit) (Amendment) Regulations 2015
 - Results of consumer market research.



2. Market structure

- 2.1 This chapter provides an overview of the current household waste collection market structure, a review of the primary economic characteristics of the sector, an assessment of the relationship between market structure and cost, as well as a comprehensive review of competition in the household waste collection sector. Detailed consideration is given to the impact of economies of scale and density; and to the type and scale of barriers to entry.
- 2.2 Before assessing the specific market characteristics of the household waste collection market it is useful to first describe briefly a number of economic concepts.
- 2.3 In general, a market can be considered competitive when businesses actively compete through their product or service offerings, and consumers can freely exercise choice among different providers. Businesses can compete on the basis of many factors, including price, service offering and quality. In a competitive market, buyers, whether they be businesses or consumers, can choose from a range of suppliers and have the ability to choose from a range of products and services, as businesses seek to differentiate their offerings from those of their competitors.
- 2.4 Within a well-functioning competitive market, buyers are informed and have the ability to switch suppliers and/or buy alternative goods and services. The ability of buyers to switch providers disciplines the market and encourages businesses to supply goods and services at the best price and to actively develop products and services that provide their customers with quality and choice.
- 2.5 The existence of competitors or potential competitors means that suppliers have to work hard to maintain, and possibly grow, their market share. This can be achieved through various means, including a consistent focus on efficiency and innovation. This, in turn, benefits the market and consumers of goods and services.
- 2.6 By contrast, a monopoly is the least competitive market structure. It exists when a single supplier serves the entire market. There are many negative outcomes from monopoly markets, but the ability of a monopoly provider to raise prices above the competitive level, without fear of losing market share, is of particular detriment to consumers. In addition, poor

product or service quality can be a feature of monopoly markets. Even if prices are high or if a product/service is not of the requisite quality, buyers cannot switch to an alternative and because there are no competitors, a monopoly operator does not have an incentive to innovate or improve efficiency. A frequent policy response to a monopoly that will not erode over time is to regulate the market, as unregulated monopolies can lead to poor outcomes for consumers.

- 2.7 In general, a market is said to be a natural monopoly if its total output can be produced more cheaply by a single firm than by two or more firms⁷. Natural monopolies tend to be characterised by significant economies of scale, high fixed costs and a large cost advantage for a single firm. The concept of a natural monopoly is distinct from the number of operators in a particular market. The fact that there are two or more active operators in a market does not mean that the market is not a natural monopoly. It does, however, mean that the market is less efficient and operates at a higher cost than would be the case if there was a single provider.
- 2.8 Barriers to entry exist where market structures, conditions, or the behaviour of market players disincentivise potential market entry. This not only prevents further competition, it also eliminates the threat of potential competition, thereby negating the need for existing market players to innovate and actively seek to maintain a competitive position. This can result in increased prices, poor customer service or reduced product quality.
- 2.9 Suppliers can be considered to have market power where they have the ability and incentive to profitably raise prices or degrade service, without being concerned about the reaction from competitors (or potential competitors) or consumers. Market power is usually characterised by high levels of market share and sustained by barriers to entry.
- 2.10 Market power exists where suppliers are neither disciplined by competitors (or potential competitors), nor can they be disciplined by countervailing buyer power. The ability to switch is one way in which buyers can counter market power. Collective purchasing is another way: if consumers are grouped together (as they would be if, for example, a local authority purchased the service on their behalf), they have greater bargaining power over both price

⁷ Turley G. Maloney M. & O'Toole F., "Principles of Economics - An Irish Textbook" (2006).

and other service conditions. Buyer power can therefore act as an important check on firms raising prices or reducing service quality.

- 2.11 Economic market failure occurs when there is a misallocation of resources, which results in distortions in the market. Market failures provide a rationale for government intervention. The Organisation for Economic Research and Development (OECD) details a number of causes of market failure⁸. The most relevant of these, from a competition perspective, is the existence of market power. Market failure also occurs when an externality exists for a product/service. This means that individuals or firms impose costs or benefits on others for which the market assigns no price. There are also market failures that arise because goods or services are not supplied by markets, or are supplied in insufficient quantities.
- 2.12 The issues discussed above will be returned to in subsequent sections when analysing the household waste collection market.

Economics of household waste collection

Overview

- 2.13 In Ireland, waste is collected from households on a fixed basis, usually weekly or fortnightly. It is then brought to a transfer station⁹ or directly to a treatment facility or landfill. In order to provide a service, an operator must have a waste collection permit, drivers and loaders, collection trucks with the ability to weigh individual households' waste at the point of collection, and separate dedicated waste receptacles for residual, dry mixed recyclables, and organic waste (generally referred to as black, green and brown bins, respectively).
- 2.14 Internationally, the provision of services in these markets is often arranged through competitive tenders which have the benefit of introducing competition for the market, and also exploit the efficiencies associated with single server provision. The rules of the tendering process are designed to mitigate any potential negative effects of monopoly, for example, by setting price and quality levels, with cost penalties for missed targets.

⁸ OECD, "Glossary of Industrial Organisation Economics and Competition Law" (2002), <https://stats.oecd.org/glossary/detail.asp?ID=3254>

⁹ A transfer station is a site for the temporary deposit of waste. They are often used by local waste operators, who deposit their waste which is then loaded onto larger vehicles for transfer to landfill or a treatment centre.

Economies of density and scale

- 2.15 Economies of density in household waste collection occur because, as the distance between households on any given route increases, so does the time it takes to fill the collection vehicle. Therefore, fuel and labour costs are higher on less densely populated routes. This is a very important aspect of household waste collection markets as in general the marginal cost of collecting from a household which is already on an operator's route is very low and may even be close to zero. This means incumbent providers have a significant cost advantage over any potential entrants. As a result, fuel and wage costs will be higher on routes which are serviced by more than one operator. The cost savings associated with single-operator systems for a designated geographic area have been observed in many empirical studies, which are explored further below.
- 2.16 Local economies of density can also cause an effect known as market tipping. For instance, consider a market with two operators, each with 50% market share and similar cost structures. If one operator increases its market share, this will be at the expense of the other. In this situation, the unit cost of the gaining operator will decrease, while the costs of the losing operator will increase. Eventually, this can reach the point where the second operator will decide to leave the market, leaving the first with a *de facto* monopoly.
- 2.17 Economies of scale in household waste collection occur because unit costs fall as the quantity of waste collected increases, with the limit of waste collected being determined by the size of the collection vehicle¹⁰. It should be noted that collection costs alone make up 60-80%¹¹ of the total costs of kerbside services. In its response to the CCPC's public consultation, a large international waste collection operator outlined that collection costs make up 66% of the total cost of the kerbside collection and disposal service¹². Economies of scale also exist in waste management as the cost per kilo of waste disposal tends to fall as the quantity of waste collected increases.
- 2.18 Economies of density apply at a level as low as an individual truck route. As an operator builds more routes, it will also achieve economies of scale, as fixed costs are shared among a greater

¹⁰ OECD, "Policy Roundtables - Waste Management Services" (2013).

¹¹ Vaughn J., "Waste Management - A Reference Handbook" (2009), page 10.

¹² Collection costs are likely to represent a lower proportion of total costs in the UK due to the lower costs associated with a tendered system.

number of customers. The closer the additional routes are to each other, the greater the cost savings.

Minimum efficient scale and natural monopolies

- 2.19 The minimum efficient scale represents the amount of output needed to produce a product or provide a service at the lowest unit cost. This is a particularly important concept for the household waste collection market in Ireland as it will dictate the number of households an operator will need to acquire as customers, in order to viably enter and remain in a new market. A study commissioned on behalf of the Italian Competition Authority found that the minimum efficient scale for waste collection occurs at about 16,000 inhabitants¹³. This is consistent with information the CCPC obtained from a medium sized operator in Ireland who indicated that the minimum efficient scale occurred at approximately 5,000 households or approximately 15,000 inhabitants. However, the minimum efficient scale will vary between geographic areas¹⁴.
- 2.20 The economies of scale and density which are prevalent in household waste collection markets mean that, at some local levels, the market for household waste collection is a natural monopoly.

Market structure and cost

- 2.21 In considering the cost savings that can arise in various market structures, the CCPC has assessed available international empirical studies. We are not aware of any similar studies that have been conducted in the Irish market. Municipalities (local authorities) in most developed countries usually arrange for waste to be collected from households by a provider which has been granted a monopoly either through a competitive tender¹⁵, or an in-house arrangement whereby the municipality collects the waste themselves¹⁶ (see chapter 3 for

¹³ Department of Environment, Community and Local Government, “Regulatory Impact Analysis” (2012), page 26, paragraph 4.

¹⁴ The minimum efficient scale will vary based on factors such as density of households, road quality, distance to transfer station etc.

¹⁵ A competitive tendering process is where different businesses can tender or bid for a contract, to supply goods or services. The winner of the tender for household waste collection is usually granted exclusivity.

¹⁶ The CCPC international request for information and the OECD Policy Roundtables - Waste Management Services (2013), indicate that only Finland has side-by-side competition for household waste collection. Finland operates a mixed system of side-by-side competition and competition for the market.

more details on international regulation). The cost savings arising from tendering for waste collection markets have been observed in many empirical studies, such as:

- Kemper and Quigley (1976)¹⁷ estimated collection costs in different areas of the US and found that markets with side-by-side competition are 25% to 36% more expensive than a single operator, and that contract or franchise agreements reduce the costs over municipal collections by another 13% to 30% (depending on the level of service)
- Stevens (1978)¹⁸ examined collection arrangements in 340 American cities and found that side-by-side arrangements are significantly more expensive than competitive tenders
- Dijkgraaf and Gradus (2003)¹⁹ estimated cost savings of approximately 15-20% from contracting out collection services in the Netherlands
- In 2010, the Finnish Institute for Economic Research estimated that the introduction of tendering for household waste collection led to a 40% price reduction for householders²⁰. Note Finland operate a mixed system of both side-by-side and competition for the market
- The OECD (2017)²¹ observed that “analysis indicates that “side-by-side” systems typically lead to higher overall costs compared to a competitively chosen single supplier; they also require strong government oversight. At the same time, non-competitive systems, where a government-owned company has a monopoly to collect household waste, also lead to higher costs”.

2.22 Side-by-side competition in waste collection also has implications for operator costs. It can provide waste operators with the opportunity to combine the collection of household and commercial waste which can increase efficiencies and lead to synergies. In smaller towns, commercial collection is usually combined with household collection, meaning the

¹⁷ Kemper P. & Quigley J., “The Economics of Waste Collection” (1976).

¹⁸ Stevens B., “Market Structure and the Cost of Refuse Collection” (1978).

¹⁹ Dijkgraaf E. Gradus R.H.J.M. & Melenberg B. “Contracting out Refuse Collection” (2003), Empirical Economics, Volume 28, page 553-570.

²⁰ Tukiainen J. & Mälkönen V., “Jätekuljetuksen sopimusmallien yritysvaikutukset, Valtion taloudellinen tutkimuskeskus” (2010) Government Institute for Economic Research page 10. Written in Finnish but abstract provided in English.

²¹ OECD, “Environmental Performance Review Estonia” (2017), Box 4.1, page 146.

commercial sector in these areas usually chooses an operator who is active in the local household market. It was noted by the Irish Waste Management Association (IWMA), as well as some operators in submissions to the CCPC consultation, that side-by-side competition in the household waste collection market increases competition in the commercial collection market, as certain areas would not be viable as commercial collection only. Furthermore, some submissions noted that if the local household market was tendered for, the commercial sector would only have a choice of the tender winner. In contrast to the household waste collection market, many international commercial collection markets have side-by-side competition. Commercial customers have more buying power, and the higher volume of waste generation per customer means that economies of scale are easier to generate with fewer collections.

Consolidation

- 2.23 In 2016 there were 63²² active household waste collection operators in Ireland. The majority of these operators are relatively small, with the top 20 providers (in terms of households served) collecting waste from the 90% of the households who avail of a service in Ireland.
- 2.24 The total number of operators active in the market is declining. In the period 2012 to 2016, the number decreased from 82 to 63, representing a 23% decrease. In response to the CCPC's consultation, the County and City Management Association (CCMA) stated that the market is a "mature market in consolidation phase" and indicated that it expects the number of suppliers in the market to further reduce in the future. This view was also expressed to the CCPC in nearly all consultation meetings with both industry and public bodies.
- 2.25 Environmental regulations are a key feature of this market. Operators' collection costs have increased in recent years due to the requirement to weigh individual household waste and collect organic and recycled waste separately. It is possible that, due to these incremental regulatory requirements, smaller operators cannot retain or acquire a sufficient number of customers to justify the investment required to enter and remain in the market.

²² The number of operators is based on the household licences issued to companies by the NWCPO as detailed in the 2016 Annual Return. These companies may not all be trading in an independent capacity.

- 2.26 The economics of the household waste collection market and information collected by CCPC during the study suggest that future consolidation is likely. This arises because designated geographic areas (broadly, local markets) can be served more efficiently by a single operator. This means that over time, operators in a side-by-side system may withdraw from servicing those areas due to loss of route density, as servicing a smaller number of widely dispersed households can make participation commercially unattractive.

Competition in the household waste collection market

- 2.27 This section presents a detailed overview of levels of competition in the household waste collection market in the State. We start by identifying the relevant product market and geographic market(s) where operators actually compete for waste collection services. We then assess the level of current competition (through an examination of concentration ratios) in these markets and examine other factors which could influence the ability of operators with high market shares from increasing prices or reducing service quality such as barriers to entry and the countervailing buying power of the consumers.

Identifying the relevant markets

- 2.28 When assessing the level of competition in any market, competition authorities generally first define the relevant product and geographic market where firms compete with one another. The European Commission has stated that “The objective of defining a market in both its product and geographic dimension is to identify those actual competitors of the undertakings involved that are capable of constraining those undertakings' behaviour and of preventing them from behaving independently of effective competitive pressure²³”.
- 2.29 A recent CCPC merger decision in the household waste collection market concluded that domestic waste collected from households (excluding apartments) is a distinct and separate product market in the waste sector²⁴. For the purposes of assessing competition in this study, the CCPC has no reason to deviate from this market as it is consistent with the Terms of Reference. Therefore, this is the key product market under examination in this section.

²³ European Commission, “Notice on the definition of a relevant market for the purposes of community competition law” (1997), paragraph 2.

²⁴ Note this merger decision only examined the market in the greater Dublin area.

2.30 The relevant geographic market for household waste collection is more difficult to identify in a system of side-by-side competition. Geographic markets could be identified by route, local authority area or region. For example, the IWMA’s submission to the CCPC’s consultation stated that they do “not agree with the concept of ‘local authority area markets’ as each local authority area can support more than one waste collector and operations in most local authority areas are influenced by operations in neighbouring local authority areas”. This view was shared by some individual operators. However, the CCPC considers that the local authority area is the most appropriate unit of analysis for the purposes of this study, for the following reasons:

- i. Recent CCPC merger determinations defined the geographic market for household waste collection at the local authority area level²⁵. This was based on the CCPC’s analysis, submissions from third parties, market enquiries and the information supplied by the parties (in particular the responses to Request for Information questionnaires)²⁶.
- ii. The National Waste Collection Permit Office (NWCPO) collects administrative data at the local authority area level and data is not available at a more disaggregated level²⁷.
- iii. Markets were originally served by local authority providers. Service types varied between local authority areas and local authority market client lists were often sold off in blocks to private operators. These factors have had lasting effects on these markets and furthermore, licences are still issued on the basis of local authority areas.
- iv. Although licences are issued at local authority level, most operators may not cover the entire area. Within local authority areas, therefore, smaller, local geographic markets exist for household waste collection, which are serviced by an even smaller number of operators than the local authority area level. This study finds that even if all licenced operators covered the entire local authority level, the markets would still be highly concentrated, meaning that smaller, more local markets will, on average, be even less competitive²⁸.

²⁵ CCPC, Determination of Merger Notification M/16/008 PandaGreen/Greenstar & Determination of Merger Notification M/18/008 Thorntons/A Plus.

²⁶ CCPC, “Determination of Merger Notification M/16/008 PandaGreen/Greenstar” (2016).

²⁷ Data on household numbers and weights is categorised by the NWCPO and operators at the local authority area.

²⁸ It is common in both EU and domestic merger policy to assess the competitive impact of a proposed transaction at the smallest possible geographic market and product market definition, if no significant lessening of competition is found at the smallest possible market definition then the transaction is cleared

The presence of three operators in a local authority area, for instance, may be a misleading indication of the level of competition, since they may all serve different routes on which each may be the sole provider. In relation to analysing concentration, making an assessment at local authority level is likely to lead to an over-estimate of competition, as not all operators in a local authority area serve the entire market.

Concentration ratios

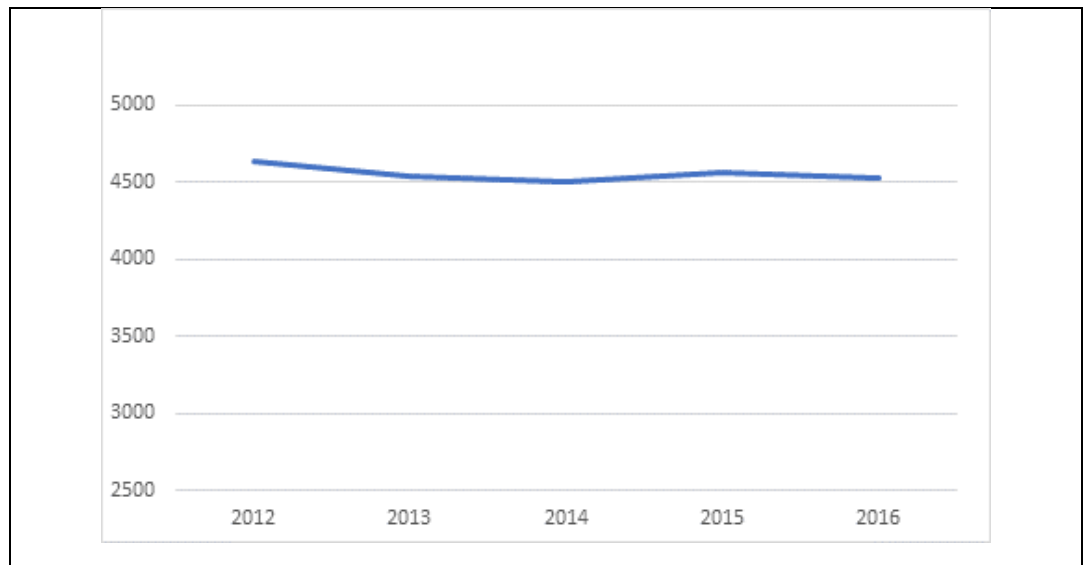
- 2.31 Market concentration is a proxy measure for assessing the level of competition in a market. A commonly used measure of market concentration is the Herfindahl-Hirschman Index (HHI)²⁹. This has been used by both the European Commission as well as the CCPC when assessing the potential impact of a proposed transaction on a particular market. European Commission guidelines³⁰ on post-merger HHI market values outline that a HHI value of greater than 2,000 is indicative of a concentrated market and is therefore a potential competitive concern, meaning the market needs to be assessed in greater detail.
- 2.32 Figure 1 details average local authority area HHI values from 2012 to 2016. Very high HHI values are evident throughout this period. The average local authority area HHI in Ireland was approximately 4,500 in 2016 and it has reduced slightly in recent years. However, the absolute level remains very high, and may even then be an under-estimate, as this is only an average of concentration ratios at the local authority level and concentration levels in some areas are even higher.

as it follows that there can be no issues at a wider product market and/or larger geographic market definition. The argument above follows the same logic.

²⁹ The Herfindahl-Hirschman Index is an economic concept widely applied in competition law as it provides a measure of the size of firms in relation to the industry and is an indicator of the amount of competition among them. The index ranges from 0 to 10,000 points, where 10,000 represents a market served by a single monopoly supplier.

³⁰ European Commission, “Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings” (2004).

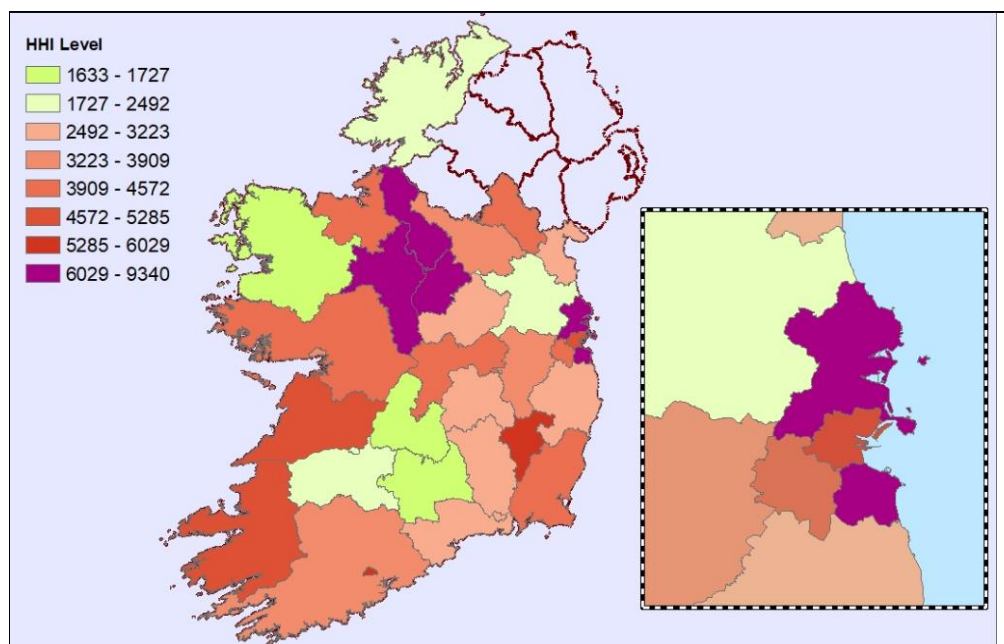
Figure 1: Average Local Authority area HHI for household waste collection 2012-2016



Source: CCPC analysis of NWCPO data

- 2.33 Further HHI detail is provided in Figure 2 for each local authority area for 2016, where only two of the 31 local authority areas (i.e. Mayo and Tipperary) are under the EU post-merger threshold of 2,000. The level of concentration varies significantly across the country with local authority area HHIs ranging from 1,600 in Mayo to 9,300 in Longford.

Figure 2: Local Authority HHI (by number of households) 2016



Source: CCPC Analysis of NWCPO data

- 2.34 The level of competition within local authority markets is generally low, and may be even lower within smaller areas. CCPC market research found that 18% of consumers nationally and 25% in the Dublin region³¹ indicated that they did not have the option of more than one service provider. Areas of the country that are consistently served by only one operator are likely to represent a competitive concern. In the absence of economic regulation or of competitive tendering which imposes terms and conditions on consumer contracts, these waste operators are likely to have market power and households cannot discipline them with the threat of switching. Even in areas where there are two active operators, consumers may not have adequate switching options, particularly if prices and service levels are similar between the two operators.

Barriers to entry

- 2.35 The previous section has shown that the market for household waste collection is currently highly concentrated. However, if new operators could enter the market, the impact of this concentration could be mitigated. This section assesses the extent of barriers to entry in the household waste collection market, both in terms of the market structure (including the inherent economies of scale and density) and of the behaviour of firms in the sector.

Structural barriers to entry - Economies of scale and density

- 2.36 According to the OECD “structural barriers to entry have more to do with basic industry conditions such as cost and demand than with tactical actions taken by incumbent firms”³². In household waste collection, the main structural barriers to entry are the economies of scale and density in the sector.
- 2.37 Economies of scale exist because the marginal cost of collection falls as the quantity of waste collected increases. There is evidence that both variable and fixed costs fall due to these economies of scale. In terms of variable costs, waste operators pay fees to dispose of waste and these fees can be lower per tonne for operators that have more scale. In relation to fixed

³¹ Note this is the rebalanced proportion which excludes those who indicated they did not know whether they had more than one option of a service provider.

³² OECD, Policy Brief, “Competition and Barriers to Entry” (2007), page 3.

costs, for example, the cost of purchasing a truck, the more waste collected the lower the fixed cost per tonne collected.

- 2.38 As discussed previously, a new entrant into the household waste collection market would need to obtain a sufficient number of customers in order to cover fixed and variable costs, the so called “minimum efficient scale” which is estimated to be approximately 5,000 households in Ireland.
- 2.39 Economies of density are also extremely significant in the household waste collection market in Ireland. Until a new entrant achieves route density, its costs will be higher than the incumbents as having more customers closer together enables operators to collect more waste in less time. Variable unit costs, including fuel and wage costs, can decrease where an operator achieves density. Fixed costs include infrastructure such as trucks, bins and technology, which are less affected by economies of density.
- 2.40 The combination of economies of scale and density that are present in the household waste collection market represents a significant barrier to entry. They essentially mean that a new entrant has to acquire a large number of customers that are reasonably close together to profitably survive in any given market.

Strategic barriers to entry

- 2.41 Strategic or behavioural barriers to entry are those which are “intentionally created or enhanced by incumbent firms in the market, possibly for the purpose of deterring entry”³³. In the household waste collection market in Ireland the main strategic barriers to entry may occur when incumbent operators act in a manner which makes market entry less attractive for new market players or for operators in neighbouring areas.
- 2.42 While the ‘purchase’ of market share is a feature of many markets, the need to do so would appear to be a significant barrier to large-scale entry in the Irish household waste collection market. An incumbent will want to protect its cost base and will be in a strong position compared to the new entrant due to its established customer base, its reduced collection costs (as it has built up route densities), and its ability to leverage market specific knowledge.

³³ Ibid.

Often the marginal cost³⁴ of collecting from a household which is already on an operator's route is very low and may even be close to zero³⁵. This means that incumbents, in response to a new entrant, can afford to target low-level pricing to the areas where competitors have entered, thereby making market entry very difficult. This point was highlighted to the CCPC in interviews with a number of market players as being a feature of the sector.

- 2.43 The most important potential entrants in the household waste collection sector in Ireland, apart from entry through acquisition are existing operators in neighbouring local authority area markets. These existing operators can identify and target specific areas with personalised prices in order to encourage households to switch. This gives operators the ability to offer a lower price to selected areas than they would to their existing customers. Market entry can also occur on a wider scale, where an operator who has no presence in a neighbouring market takes a commercial decision to enter a new market. In both of these scenarios, an incumbent is well-placed to employ strategies as outlined above, such as reducing price. In addition, incumbents, particularly in response to entry by a neighbouring competitor, can retaliate by entering into the said neighbouring market, perhaps using the same strategy of personalised pricing. From a commercial perspective, a household gained in a new market does not equate to a household lost in a market where an operator has established route densities³⁶. Therefore, the implicit threat of retaliatory action by an incumbent operator acts as a barrier to entry in the Irish household waste collection market. This was stated by key market players during interviews with the CCPC and it was also cited by the CCMA as a potential barrier to entry in the response to the CCPC's consultation.

Barriers to entry in a side-by-side competition market

- 2.44 Where markets are tendered for, competing potential operators offer the lowest price/best service offering on the basis of the same cost structures and route densities etc. In this sense, the barriers to entry in the Irish market are exacerbated by the side-by-side structure. A large international waste operator outlined to the CCPC that they had considered entering the Irish market but that they were deterred by the current side-by-side market structure. They stated that the cost efficiencies that arise from tendering for household collection markets are

³⁴ Marginal cost is the cost added by producing one additional unit of a product or service.

³⁵ The Competition Authority, "Case Com/108/02: Enforcement Decision" (2005), paragraph 2.67.

³⁶ The marginal cost to servicing a household already on an operator's route is very low.

significant due to economies of density. They also considered it probable that existing market participants in Ireland would strongly resist a new entrant, meaning that household acquisition costs would be high.

Buyer power

2.45 An individual consumer's buyer power in a non-competitive market is limited. However, consumer buyer power in the household waste collection market is even more limited than in normal circumstances for the following reasons:

- (a) All households produce a certain amount of waste and, in many cases, it will not be feasible for households to dispose of this waste themselves unless they are close to a landfill/civic amenity centre. Even this is not an optimal solution to waste disposal; every household driving to landfills/civic amenity facilities would increase emissions and traffic congestion, and would be economically inefficient. In this sense, a consumer's option to not avail of a service in response to a change in service quality or price is extremely limited.
- (b) Unlike many other products and services, the consumer cannot avail of a household waste collection service outside their area i.e. they must choose an operator who services their household route.

Key findings

2.46 The key findings of this chapter are summarised as follows:

- **The market is highly concentrated in places, giving operators considerable market power. This market power is unconstrained by any countervailing buyer power, due to the weak position of consumers.**
- **The household waste collection sector exhibits characteristics of a natural monopoly, including economies of density and scale, high fixed costs and a large cost advantage for a single operator.**



- **Barriers to entry are exacerbated by the side-by-side competition model which makes the cost of acquiring households for a new entrant both expensive and uncertain.**
- **The level of competition varies across the country. Whether households have a choice of operator, and an ability to switch, is heavily influenced by their location.**
- **Significant operator consolidation has occurred in the market and this is likely to continue. It is not likely that new operators will enter the market, due to cited structural and behavioural barriers to entry.**
- **The ongoing consolidation in the market could mean that the remaining operators may have an unregulated monopoly position with possible adverse implications for household charges and service levels, and ultimately, consumers.**

3. Regulation and enforcement

- 3.1 This chapter presents an overview of regulation and enforcement in the household waste collection market in the State and a review of how the market is regulated in other European countries. An overview of policy is presented and the chapter also details the role of competition law in the sector.
- 3.2 In addition to the environmental implications of waste generation and management, household waste collection is subject to economies of density and scale meaning it displays natural monopoly characteristics (as discussed in Chapter 2) which can impede the competitive provision of these services, thereby damaging consumer welfare. As a result, household waste collection markets are internationally generally subject to a form of economic regulation.
- 3.3 As will be seen, Irish regulation of the household waste collection market is designed to address environmental concerns. However, there is currently no regulation to address the economic market characteristics which are unique to the Irish household waste collection market. The shift from a single provider provision to individual household purchasing has led to an increase in market power, without the countervailing buyer power which would be present if, for example, the local authority had selected a provider through a tender process.

International regulation

- 3.4 In Europe and Internationally, our analysis indicates that the vast majority of countries regulate for economic market failures in household waste collection by:
- Awarding exclusive rights for the collection of household waste in a specific area, for a pre-defined amount of time, to the winner of a competitive tender (tendering for the market); or
 - Providing for the collection of household waste through State-run monopolies.
- 3.5 Tendering for the market allows a municipality to stipulate its requirements in relation to many relevant factors, including the level and type of service to be provided to households

and the adherence to environmental standards. In terms of service to households, such factors can include:

- The cost of the provision of the required service to households and the manner in which changes are to be approved and notified to households
- The frequency of collection and permitted hours of collection
- Operators' responsibilities regarding the provision of bins/bags and whether households can be charged for such, and at what cost
- A requirement to notify households of the operator being responsible for waste collection in advance of the service commencing and to explain the terms under which the service is provided
- An obligation on operators to advise households on the mechanisms to address service issues, with such mechanisms being outlined in the contract terms. For example, a requirement for the operator to notify a household, in writing, within 24 hours, if the operator does not collect a household's waste, outlining the reason.

3.6 Municipalities can deliver on environmental objectives through the tendering process. Tenderers can be required to outline adherence to requirements for waste segregation (i.e. having trucks capable of collecting different, separate categories of waste). Municipalities can also design a tender around the requirement for operators to support the "polluter pays" principle, requiring operators to demonstrate that they have the required infrastructure to weigh waste per household. Other environmental aspects can be included in the contract including mandatory reporting of illegal dumping in the contracted area and the requirement to use particular waste disposal sites or processing facilities.

3.7 In order to assess the regulation of household waste collection markets internationally, the CCPC considered evidence from external reports³⁷ and directly surveyed 10 national competition authorities across the EU³⁸.

³⁷ OECD, "Policy Roundtables - Waste Management Services" (2013) & OECD, Review of Estonia (2017) https://www.oecd.org/environment/country-reviews/OECD_EPR_Estonia_Highlights.pdf

³⁸ Estonia, France, Finland, Italy, Latvia, Lithuania, Poland, Slovakia, Sweden, UK.

OECD policy roundtables - waste management services

- 3.8 The Organisation for Economic Research and Development (OECD) Competition Committee debated waste management services including household waste collection in October 2013³⁹. As part of this analysis the OECD received written submissions from Canada, the Czech Republic, Estonia, the European Union, Finland, France, Germany, Ireland, Italy, Japan, Latvia, Lithuania, Norway, Peru, Poland, Romania, the Russian Federation, the Slovak Republic, South Africa, Sweden, China, Turkey, Ukraine, the United Kingdom and the United States.
- 3.9 One of the conclusions of the OECD policy roundtable was that collection of Municipal Solid Waste (MSW)⁴⁰ was a natural monopoly in many, though not all markets⁴¹ and that, “Consequently, municipalities usually arrange for MSW to be collected from households by a provider that is granted the monopoly for this service, either the municipality itself (directly or as a municipal company) or a private company”⁴². The roundtable report found that, at the time, only three of the countries studied arranged for the collection of waste from households through side-by-side competition namely Ireland, Poland (who have since switched to a tendered system), and Finland (who operate a mixed system).
- 3.10 The evidence from submissions to the OECD roundtable report indicated that there could be problems arising from tendering for household waste collection markets, primarily competitive non-neutrality in the selection process, which arises due to the favouring of State-owned collection companies in the tendering processes. The report also noted the importance of careful tender design, and that the duration of contracts was important and should be based on the length of time needed to recover sunk operator costs.

CCPC international survey

- 3.11 All but one of the ten countries surveyed indicated that they operate competitive tendering, or a combination of competitive tendering and State-run monopolies (See Table 1 for a

³⁹ <http://www.oecd.org/daf/competition/Waste-management-services-2013.pdf>

⁴⁰ Municipal waste in Ireland is made up of household waste as well as commercial and other waste that, because of its nature or composition, is similar to household waste.

⁴¹ Collection of MSW also includes commercial collection, which is less likely to be considered a natural monopoly.

⁴² OECD, “Policy Roundtables - Waste Management Services” (2013), paragraph 1, page 6.

breakdown by country). The exception is Finland, where 50% of municipalities, representing 40% of households, operate a decentralised model of side-by-side competition. However, unlike Ireland, Finnish regulators have legal ownership of the waste. This gives them a greater degree of control over the market as it allows them to direct waste to the disposal facilities of their choice, and gives them the legal basis to immediately implement competitive tendering if the side-by-side structure is not functioning adequately. Under the current regulatory system, these levers are not available to the Irish authorities.

- 3.12 Poland operated a system of side-by-side competition until 2011, when municipalities were granted ownership of household kerbside waste and it was mandated that collection was organised through a competitive tender procurement process⁴³. These changes were enacted as the side-by-side market was regarded as dysfunctional, with evidence of widespread fly tipping and burning of waste⁴⁴. The results of the policy change have, to date, been mixed, with some evidence that certain municipalities are favouring State-owned operators in the public tender process⁴⁵.
- 3.13 Funding for a household collection service that uses competitive tendering is either through common taxation (Slovakia, Poland, UK, Italy and France), a direct charge from the winning tenderer to the household (Latvia, Estonia and Lithuania) or a system where the municipality charges households based on their usage of the collection services (Sweden). In systems where the tender winner charges households directly, the price is set through the contract between the municipality and the tender winner. In Latvia, for example, the price defined in the contract acts as a maximum price⁴⁶ where the operator cannot charge above the pre-defined level.

⁴³ Since 2017 local authorities can provide in-house collection i.e. State-run monopolies.

⁴⁴ OECD, "Policy Roundtables - Waste Management Services" (2013), page 171.

⁴⁵ CCPC correspondence with Polish National Competition Authority.

⁴⁶ This maximum price is set through the competitive tendering process.

Table 1: International regulation of household waste collection

Side-by-side	Competitive tendering	Competitive tendering & State-run monopoly	Competitive tendering & side-by-side
Ireland	Poland	UK	Finland
	Latvia	Italy	
	Estonia	France	
	Slovakia	Lithuania	
		Sweden	

Source: CCPC international survey

- 3.14 All countries surveyed indicated that their household waste collection market was regulated by the local councils/municipalities.
- 3.15 As part of the international survey, countries were asked specific questions about the regulation of the market and what the scope of this regulation was, including price regulation. Where competition for the market is in place, prices are set as part of the tendering process.
- 3.16 As shown above, competitive tendering and/or a State-run monopoly is a feature of all countries surveyed. The requirement to regulate natural monopoly issues is primarily, if not exclusively, achieved through competitive tendering or State-run monopolies.
- 3.17 Competitive tendering for household waste collection markets affords municipalities a higher degree of control over the industry as: (a) There is a direct contract between the tendering municipality and the waste operator, which is enforceable, and (b) There are fewer operators to monitor in any given market which is desirable from an environmental⁴⁷ perspective.

Irish household waste regulatory policy

- 3.18 Since 2012, “A Resource Opportunity - Waste Management Policy in Ireland” (2012 Policy), has been the overarching policy approach to the management of the household waste collection market in the State. The policy sets out the planned policy approach to waste management more generally. However, this section will focus on the policy approach to the household waste collection market in the State.

⁴⁷ Fewer operators means fewer collection vehicles on the road leading to a reduction in emissions.

3.19 The 2012 Policy followed a Regulatory Impact Analysis (RIA) undertaken in 2012⁴⁸. A detailed summary of the RIA is outlined below.

The 2010 Programme for Government stated that the Government “will introduce competitive tendering for local waste collection services whereby local authority and private sector collection firms would bid to provide waste collection services in an entire local authority area, for a given period and to a guaranteed level of service, including a public service obligation in respect of a waiver scheme for low income households”. The Programme stated that the bids would be judged and awarded by a new utilities regulator. A RIA was undertaken in June 2012 to consider the Government decision which noted that “it is certainly the case that society’s waste management expectations and market developments have overtaken the capacity of the current regulatory regime to deliver⁴⁹”.

Government objectives and initial RIA assessment

The RIA outlined the Government’s household waste collection policy goals as follows:

1. Support the attainment of our environmental objectives and are consistent with the legal cornerstones of National and European policy
2. Provide for the segregation of household waste, as required by EU and national law
3. Maximise the number of households with access to a waste collection service and maximise householder participation
4. Minimise the price paid by the householder, commensurate with the achievement of environmental objectives
5. Provide a quality service to the householder
6. Sustain a competitive and progressive waste management industry which works in partnership with the State
7. Provide the market stability and regulatory certainty necessary to underpin investment infrastructure
8. Meet other social preferences such as minimising community disamenity and maximising health and safety.

The RIA concluded that the current regulatory regime was incomplete and imperfect and had resulted in outcomes that did not meet the Government’s objectives. These failures or potential failures which were environmental, economic and social were detailed as follows:

- Householder non-participation
- Householder segregation
- Price structures and incentivisation
- Capacity to meet legal environmental obligations
- Price levels
- Market power, monopolisation and collusive behaviour
- Waiver schemes
- Dual role: Local authority service provider and regulator.

⁴⁸ Department of Environment, Community and Local Government, “Regulatory Impact Analysis” (2012).

⁴⁹ Ibid., page 1.

Options considered by RIA and assessment process

The RIA broadened its scope beyond the Government decision in 2010, “this regulatory analysis is not restricted to a narrow consideration of the best implementation of franchise bidding; the focus has been on the broader issue of how best to regulate household waste collection”⁵⁰. This position was informed by a 2011 consultation process on the regulation of household waste collection where there was not a consensus from respondents on an appropriate policy development process. The RIA analysed three principal policy options covering:

1. Do nothing
2. Restructure household waste collection markets and introduce franchise bidding (i.e. competitive tendering)
3. Retain the current market structure and strengthen the current regulatory regime.

Each of the three options was initially assessed in terms of their ability to meet the Government policy goals using the following assessment process, where the scores are detailed below:

- a) Basic scoring system
- b) Scoring and weighting of options system
- c) Scoring and weighting of option 2 under a problematic implementation of franchise bidding scenario, where a sensitivity analysis was carried out.

Government Policy Goal	Option 1: Do nothing		Option 2: Restructure market via competitive tendering			Option 3: Retain current market structure, enhance regulation	
	a. Basic score	b. Weighted Score	a. Basic score	b. Weighted Score	c. Problematic Implementation Scenario	a. Basic score	b. Weighted Score
1: Environment objectives*	3	4.5	9	13.5	12	9	13.5
2: Waste segregation	4	4	9	9	9	8	8
3: Household participation	3	3	10	10	10	8	8
4: Minimise price*	7	10.5	9	13.5	10.5	6	9
5: Quality service	4	4	8	8	7	8	8
6: Competitive, sustainable industry	5	5	8	8	7	8	8
7: Market stability, regulatory certainty*	4	6	7	10.5	7.5	9	13.5
8: Social preference	3	3	9	9	9	8	8
Total score	33	40	69	81.5	72	64	76

* These goals have a weighting of 1.5 in Option 2.

A further assessment of options 2 and 3 was undertaken in relation to financial capacity and the risks associated with each of the options. The RIA noted that a major change to the regulatory environment of any industry would impact on individual firms. However, the financial position of many of the waste operators was not known and it was not possible to make a definitive assessment in the RIA.

⁵⁰ Ibid., page 5.

The RIA noted that while competitive tendering would be designed with the goal of ensuring that competition was strong where potential bidders were provided with as much information as possible, small to medium sized waste operators would still be disadvantaged relative to their larger counterparts. The RIA welcomed that competitive tendering would also attract international companies, whose entry would further strengthen competition.

The risks with altering the market structure were detailed by the RIA as follows:

- Capacity of current players to engage in competitive tendering market structure may not be strong
- Current operators could fail to win tenders and cease trading
- Current industry may be unwilling to engage in the altered market structure and may take actions to obstruct change.

The risks associated with not altering the market structure were detailed by the RIA as follows:

- Management of household waste will be privatised and the control of waste will rest with the private sector. As the market develops consolidation is likely over the medium to long term, in which a number of vertically integrated waste collection firms will capture much of the national market. These firms, collectively and individually, will have great influence over the State's waste management performance. The choices these firms make will define waste management performance. A scenario of regulatory capture, in which the waste management industry effectively controls the regulation of its own industry is a possibility, with financial consequences for householders and environmental consequences for all of society.
- The full privatisation of the system could result in the State being at risk of not meeting current or future international obligations if private sector incentives and the State's interests are misaligned.

Policy recommendation

The RIA concluded that while competitive tendering scored highest under optimal implementation conditions, however, should implementation be problematic, side-by-side competition provided a superior mix of outcomes.

The Department recommended that the Government preserve the current market structure and introduce a number of regulatory mechanisms, which were subsequently included in the 2012 Policy. The recommendation took particular account of a number of factors covering:

- The critical nature of household waste collection services to the economy and the wellbeing of society; and
- The inherent transaction costs, and the potential economic disruption and other risks, of an alteration in the market structure, particularly during a difficult phase of the economy's development.

3.20 The 2012 Policy⁵¹ stated “the performance of the household waste collection market in particular will be crucial in achieving our overall policy objectives and meeting our targets on landfill diversion.” The policy outlined a decision to “strengthen significantly the regulatory regime which applies to household waste collection in order to address identified deficiencies”, which included:

- Low householder participation in some areas
- Insufficient levels of segregation, prevention and reuse of waste
- Pricing issues
- Potential competition and corporate governance issues
- The State’s obligations under EU law
- Illegal waste activities and insufficient/ineffective implementation of the “polluter pays” principle.

3.21 In relation to the question of altering the structure of the household waste collection market, the 2012 Policy reinforced a point in the RIA, stating “Other issues identified include the critical nature of household waste collection services to the economy and the wellbeing of society, and the inherent transaction costs, and the potential economic disruption and other risks, of an alteration in market structure particularly during this difficult phase of the economy’s recovery⁵²”.

Policy actions

3.22 The 2012 Policy detailed a range of measures which were aimed at addressing the problematic areas, identified above, as follows:

Waste collection

- “Through collection permits issued under a strengthened permitting system, waste collectors will be required to:

⁵¹ Department of Environment, Community and Local Government, “A Resource Opportunity - Waste Management Policy in Ireland” (2012).

⁵² Ibid., page 30.

- manage the waste collected in accordance with the waste hierarchy and in a manner supportive of the development of a resource efficient and sustainable approach to the management of waste
 - deliver mandated service levels; and
 - operate pricing structures designed to incentivise environmentally sustainable behaviours by households in terms of waste reduction and segregation”.
- “The collection permitting system will be strengthened further so that:
 - robust controls are in place to ensure that only “fit and proper” individuals and companies are allowed to hold such permits and appropriate corporate governance arrangements are implemented
 - Producer Responsibility Initiative waste is always provided to the obligated compliance scheme or waste collector and is recovered and recycled appropriately by, the relevant sectors at all times
 - Permit fee structures reflect the value of the permission to collect waste conferred by a permit, the need to contribute to the costs of essential enforcement of the permitting system and the potential liabilities for the State which may arise from poor collection and management practices.”
- “All household waste collection service providers will be required to put in place Customer Charters, clearly setting out information for customers in relation to issues such as charging structures, procedures for dealing with customers who may fall into arrears, and arrangements for switching from one waste collector to another. These will be audited annually as part of the permitting process.”
- “Measures will be introduced through the strengthened collection permit system to manage better the nuisance, emissions and health and safety risks of overlapping household waste collection networks.”
- “Inspection and enforcement resourcing for collection permits will be increased, funded in part by the revised permitting fee structure.”

Operation of the market

- 3.23 The 2012 Policy identified potential competition issues with retaining the existing market structure. To address them, the Competition Authority (TCA) (one of CCPC's predecessor organisations), was requested to maintain an ongoing oversight of the household waste collection market as it was considered that the retention of the side-by-side market structure, combined with a strengthened regulatory regime, would require close monitoring. The 2012 Policy also included a requirement that a formal review of the household waste collection market be carried out in 2016. As part of this, the TCA was requested to complete a report where the performance of the sector in contributing to the 2012 Policy objectives would be a central theme. This review was included in the 2014 Action Plan for Jobs. However, the review as required, could not be conducted due to a lack of sufficient data on key market variables.
- 3.24 The next section, "Regulatory framework", outlines the implementation of the 2012 Policy's initiatives and subsequent legislative proposals.

Regulatory framework

- 3.25 The regulation of the household waste collection market primarily derives from the Waste Management (Collection Permit) Regulations 2007⁵³, as amended. These were enacted as a Statutory Instrument under the Irish Waste Management Act 1996⁵⁴ and are applicable to the entire waste collection market. The Regulations give effect to a range of European environmental directives and focus on the permitting process.
- 3.26 During the mid-1990s households were either charged flat fees for waste collection or were not charged at all. This meant there was limited incentive for households to reduce, recycle, or compost the waste they generated. The Government set a target that volume or weight-based charges should be in place nationally from the start of 2005⁵⁵. However, many

⁵³ S.I. No. 820/2007.

⁵⁴ The Irish Waste Management Act 1996 sets down provisions to reduce the amount of municipal waste generated and promote appropriate recovery of waste. The Act transposes many of the provisions of the Waste Management Directive (Directive 2008/98EC) into law which is the overarching piece of European legislation and focuses on waste prevention, reduction, recycling and the polluter pays principle.

⁵⁵ Barrett A. & Lawlor J. "The Economics of Solid Waste Management in Ireland" (1995), Economic and Social Research Institute Research Series.

operators continued to offer flat rate charges, and the effectiveness of pay-by-use charges varied based on the type of charging structure in place.

3.27 Both international and domestic evidence suggests that pay-by-use systems produce better environmental outcomes than flat fee charging structures⁵⁶. In general, there are three main categories of pay-by-use waste charges:

- Volume based charges: Households pay for a particular sized bin, with the price usually increasing with bin size
- Tag-a-bag and pay-by-lift systems: Households either pay for each collection (pay-by-lift), or pay for tags which are attached to each bag. Some tag-a-bag operators collect all tagged bags in a given area from a designated collection point, e.g. Key Waste in Dublin city⁵⁷
- Pay-by-weight systems: This system can be broken down further into three main categories:
 - Per kilogramme systems
 - Banded systems: There is a flat charge for a defined usage level, and after this the household is charged per kilogramme. According to the Price Monitoring Group⁵⁸ this is the most popular “incentivised charging structure”
 - The average weight system: Household bills are calculated on the basis of an average waste-presentation rate, which could be household specific or area specific. If a household presents less waste than the average they get a reduction on their bill and if they present more they pay more.

3.28 A review of pay-by-use systems in 2011⁵⁹ concluded that the pay-by-weight approach delivered the best outcomes in relation to household recycling. The matter was considered

⁵⁶ Scott S. & Watson D., “Introduction of Weight-Based Charges for Domestic Solid Waste Disposal” (2006), Economic and Social Research Institute & OECD, “Household Behaviour and the Environment. Reviewing the Evidence” (2008)

⁵⁷ <https://keywaste.ie/wp-content/uploads/2013/05/Keywaste-CCD-Map-Stockists.pdf>

⁵⁸ A Price Monitoring Group was set up by the Department of Communications, Climate Change and Environment in September 2017 to monitor waste collection charges during the phasing out of the flat rate charges.

⁵⁹ O’Callaghan T. & Coakley A., “Study of Pay-by-use Systems for Maximising Waste Reduction Behaviour in Ireland” (2011), STRIVE Report 84, page 16.

further in 2014 as part of a public consultation on the regulation of household waste collection⁶⁰.

3.29 The Waste Management (Collection Permit) (Amendment) Regulations 2016⁶¹, (the “2016 Regulations”) were signed into law in January 2016 by the then Minister for the Environment, Community and Local Government. Primarily, the 2016 Regulations provided for the introduction of pay-by-weight charging for the collection of household waste from 1 July 2016. The Eighth Schedule of the 2016 Regulations also provided for minimum mandatory fees for kerbside waste collection:

- Residual household kerbside waste: 11 cent per kilogramme
- Food waste and, as the case may be, bio-waste: 6 cent per kilogramme
- Recyclable household kerbside waste: 2 cent per kilogramme.

3.30 The 2016 Regulations resulted in political scrutiny due to concerns about the potential scale of resulting price increases. The CCPC also saw an increase in contacts from consumers regarding operators increasing standing charges, changing contracts mid-term and the lack of sufficient information provided to them on the proposed changes. The CCPC formally engaged with waste operators to remind them of their obligations under general contract law and consumer protection legislation. This is discussed further in Chapter 4.

3.31 Section 20 of the 2016 Regulations also provides more detail on the environmental responsibilities of operators for household waste collection:

- Household kerbside waste, aside from waste collected in bags, must be weighed by appropriate weighing systems. Only vehicles fitted with approved weighing mechanisms are authorised to collect such waste
- Operators are obliged to detail the various types of waste which they collect, as well as to demonstrate that they have access to appropriate facilities to dispose of said waste
- Collection receptacles as well as vehicles must be labelled with the operators permit collection number (non-compliance with this could result in “on the spot” fines)

⁶⁰ Department of the Environment, Community and Local Government, “Regulation of Household Waste Collection” (2014).

⁶¹ S.I. No. 24/2016.

- Flat fee charging structures are prohibited
- Households must be provided with appropriate separate receptacles for residual, recyclable and organic waste⁶²
- Recyclable materials must be collected from households every two weeks or less. The Seventh Schedule sets out a minimum list of recyclable materials that must be collected
- The weight of kerbside waste must be reported to the householder on a monthly basis.

3.32 On 30 June 2016 the Waste Management (Collection Permit) (Amendment) (No.2) Regulations 2016, S.I. No. 346/2016⁶³, were signed into law. This removed the mandatory introduction of the pay-by-weight charging systems and deleted the Eighth Schedule relating to minimum charges. The following day it was announced that the Government had made an agreement with the Irish Waste Management Association (IWMA) to temporarily freeze waste collection prices until June 2017.

3.33 The 2016 Regulations also repeated that operators should prepare a customer charter, which was required under the Waste Management (Collection Permit) (Amendment) Regulations 2015⁶⁴, which set out the required format for a customer charter in the Sixth Schedule. Further detail on these requirements, including the lack of an enforcement regime, is outlined in Chapter 4.

Prohibition on flat fee charging structure

3.34 On 27 June 2017 the Minister for Communications, Climate Action and Environment confirmed that a more flexible framework for waste collection charges had been approved by Government⁶⁵. The new arrangement would phase out flat rate charges starting from the end of September 2017. Customers could only be moved off flat fee charging structures at the end of their current contracts, meaning flat fee contracts would not be fully eradicated

⁶² Note this does not apply to areas which have been designated by local authority areas for bagged collection.

⁶³ <http://www.irishstatutebook.ie/eli/2016/si/346/made/en/print>

⁶⁴ S.I. No. 197/2015.

⁶⁵ <https://www.dccae.gov.ie/en-ie/news-and-media/press-releases/Pages/Household-Waste-Collection-Charging-Arrangements.aspx>

until September 2018. However, operators were still permitted to offer banded pricing structures which charge households per kilogramme, only after the household exceeded a predefined weight allowance. In practice this has meant that if the pre-defined allowance is set at a high level then households will effectively be on a flat fee or non-incentivised charging structure. In response to the CCPC's consultation, the County and City Management Association and RPS stated that the new incentivised charging structure was having a limited impact on household waste streaming, as the weight allowances in banded payment structures were too high⁶⁶. In contrast, the Irish Waste Management Association (IWMA) stated that it expected the new charging system to result in a reduction in residual waste and an increase in recycling rates. However, no data was provided to support either view.

Regulation and enforcement structure

3.35 38 bodies are specifically tasked with some form of regulation and enforcement activity in the household waste collection sector, as follows:

- The National Waste Collection Permit Office (NWCPO), which is housed in Offaly County Council and is responsible for issuing household waste collection permits
- All 31 local authorities in Ireland (26 County Councils, 3 City Councils, 2 City and County Councils) have a responsibility to ensure waste collection operations in their areas are complying with the obligations of their permits
- The three Waste Enforcement Regional Lead Authorities, which are responsible for co-ordinating the enforcement actions of local authority areas in their regions
- The three regional waste management offices⁶⁷ which are responsible for co-ordinating national waste policy in their areas.

The Department of Communications, Climate Action and Environment (and formerly the Department of the Environment, Community and Local Government) is responsible for the overarching policy formation and design of regulations in the market. The Environmental Protection Agency does not have a direct role in the household waste collection sector, though its role does interact with the sector in terms of licencing of waste facilities and

⁶⁶ The County and City Management Association and RPS submission to the CCPC public consultation.

⁶⁷ The three Waste Management Offices cover specific regions: Eastern & Midlands, Connacht/Ulster, and Southern Region. The Eastern & Midlands body is known as Eastern & Midlands Regional Waste Office.

working with local authorities and other agencies to tackle environmental crime. In this respect, it co-ordinates a Network for Ireland's Environmental Compliance and Enforcement (NIECE), which targets offenders and oversees remediation.

- 3.36 In its submission to the CCPC consultation, the IWMA expressed the view that the approach to regulation varied between local authority areas and that operators were not all trading on a level playing field.
- 3.37 If an operator is not complying with permitting regulations the relevant local authority can ask the NWCPO to conduct a review of the operator's permit⁶⁸ which could result in the permitting conditions being changed, or possibly a revocation of the permit. The NWCPO indicated to the CCPC that they rarely conducted such reviews. Indeed, the revocation of a permit would be a drastic step, leading to a temporary gap in the market meaning that households may have no access to an operator. In unserved markets⁶⁹ this could lead to a high level of disruption and consumer detriment.
- 3.38 Using fines as an enforcement tool is currently limited to specific breaches of regulations. Local authorities can only issue fixed payment notices (commonly referred to as 'on the spot' fines) if operators do not have their permitting numbers on all their collection vehicle and receptacles⁷⁰. This is in contrast to the enforcement regime that exists for other utilities which are the subject of economic regulation, where fines can be imposed for regulatory breaches.

Provision of brown bins to households

- 3.39 The mandatory provision of a dedicated bin for organic waste has been a legislative requirement since 2007⁷¹. In 2008, the Department of the Environment, Heritage and Local Government instructed local authorities to provide, as a matter of urgency, for the implementation of source-segregated collection for organic waste⁷². Subsequently, the regulation on the mandatory provision of organic bins by household waste collectors was

⁶⁸ Waste Management (Collection Permit) Regulations 2007 Section 23 (1).

⁶⁹ This is a market where no operator can be found to provide a service.

⁷⁰ Violation of section 34 (7) (d) of the Waste Management Act.

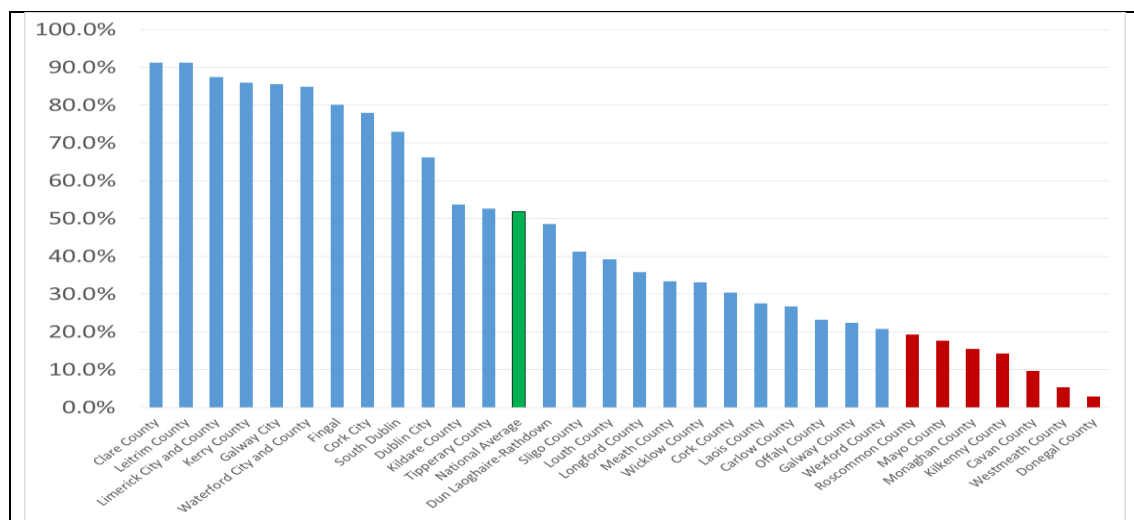
⁷¹ Waste Management (Collection Permit) Regulations 2007 Section 20 (h) (j).

⁷² Department of Environment, Community and Local Government, "Regulatory Impact Analysis" (2012), page 45.

introduced via the Food Waste and Bio-waste Regulations⁷³ in 2013 (only for households situated in a population agglomeration over 500), with an implementation timescale of 1 July 2016. The purpose of this Regulation is to achieve the objectives of the Waste Hierarchy and of the Regional Waste Management Plans⁷⁴, whereby organic waste is source separated for composting, as distinct from being sent to landfill or incineration. The requirement that operators provide brown bins is also included in the 2016 Regulations.

- 3.40 To date, the rollout out has been slow. Figure 3 estimates organic bin provision based on an analysis of NWCPO data from local authorities. The CCPC has estimated that by 2016 only 50% of all households with a scheduled service had an organic bin, and 19 of the 31 local authorities had provision rates below 50%. Cavan, Donegal, Kilkenny, Mayo, Monaghan, Roscommon and Westmeath are also highlighted as having rates less than 20%. These areas also exhibit the lowest participation rates in the household waste collection market in the country.

Figure 3: Organic bins as a proportion of residual bins (2016)



Source: CCPC analysis of NWCPO data

- 3.41 The CCPC analysed the 2016 data from the operator questionnaire which was undertaken as part of this study, in relation to Donegal, Kerry and Mayo households (which have low brown bin coverage) as against Dún Laoghaire-Rathdown (with 50% brown bin coverage). These

⁷³ European Union (Household Food Waste and Bio-waste) Regulations 2013 - S.I. No. 71 of 2013.

⁷⁴ Connacht Ulster region, "Waste Management Plan-Executive Summary" <http://www.curwmo.ie/wp-content/uploads/2015/10/Executive-Summary.pdf>

counties' presentation of residual waste is 57% higher than Dún Laoghaire-Rathdown. The presentation of organic waste and recyclate material is less in these counties than in Dún Laoghaire-Rathdown.

- 3.42 These findings are an initial indication that the provision of an organic bin has a positive impact on the ability of households to segregate effectively⁷⁵. The limited provision of brown bins in some areas, which is a mandatory condition of operator permits, illustrates a lack of compliance with the current Regulations and raises questions about the supporting enforcement regime.

Role of competition law in the waste sector

- 3.43 The CCPC has a remit to ensure compliance with a range of competition and consumer protection legislation across the entire economy. Its main functions in this respect concern competition law enforcement, merger control and consumer law enforcement (which is dealt with in Chapter 4).
- 3.44 Competition law contains two fundamental classes of prohibitions: (1) against businesses entering into agreements, decisions or concerted practices which have the object or effect of preventing, restricting or distorting competition ("the Section 4 Prohibition"⁷⁶) and (2) against abuse of a dominant position ("the Section 5 Prohibition"⁷⁷).
- 3.45 The Section 4 Prohibition is aimed primarily at agreements (whether explicit or tacit), such as cartel agreements, whereby businesses agree not to compete. The agreement may relate among other things, to charging uniform prices, to reducing output so as to force prices up, or to dividing up geographical areas so that each business does not stray into another's "patch", thereby guaranteeing each business a monopoly.
- 3.46 The Section 5 Prohibition is aimed at controlling the behaviour of dominant firms - those which enjoy a position of such strength on their market that they can behave, effectively, independently of competitors, customers and, ultimately, consumers. Firms in a dominant

⁷⁵ The implementation of incentivised pay-by-weight charging structures in Dún Laoghaire-Rathdown could also be responsible in part for the higher levels of segregation.

⁷⁶ Refers to Section 4 of the Competition Act 2002 (No. 14 of 2002), as amended.

⁷⁷ Refers to Section 5 of the Competition Act 2002 (No. 14 of 2002), as amended.

position must not engage in certain anti-competitive behaviours, such as imposing unfair purchase or selling prices, limiting production, or unfairly discriminating against certain customers. It is important to note that the holding of a dominant position is not, in itself, illegal; the issue is the behaviour of the dominant firm.

- 3.47 The CCPC has examined a number of allegations regarding the conduct of waste operators in the State. However, evidence to the level required to initiate enforcement proceedings has not, to date, emerged.
- 3.48 Mergers over a certain financial threshold must be notified to the CCPC for review as required by the Competition Act 2002, as amended (the “Competition Act”). The CCPC assesses whether a proposed merger or acquisition is likely to result in a substantial lessening of competition (SLC) in the affected markets. Where we find that no SLC will result from any given proposed acquisition, we approve the transaction. But where we find that a transaction will result in a SLC, we will either prohibit the completion of the transaction or impose conditions (such as a divestment of certain assets) which are designed to eliminate the risk of a SLC occurring.
- 3.49 One of the recent mergers in this sector that required mandatory notification to the CCPC was the acquisition by Panda of Greenstar, which was cleared in August 2016, subject to binding divestment commitments⁷⁸. These required Panda to sell Greenstar’s domestic waste collection businesses in Fingal and Dún Laoghaire-Rathdown to another operator, in order to prevent an SLC.
- 3.50 This study has outlined that there will likely be further consolidation of operators in the household waste collection market in the State. Currently, the majority of mergers and acquisitions which occur in the household waste collection sector involve small operators whose turnover falls under the CCPC’s merger notification thresholds and thus, are not required to be mandatorily notified.
- 3.51 However, the ability of the merger review mechanism to address issues in the context of a natural monopoly is limited. There may be significant efficiencies in allowing a single

⁷⁸ <https://www.ccpc.ie/business/ccpc-clears-proposed-acquisition-pandagreen-greenstar-subject-binding-divestment-commitments/>

company to operate in areas, but the monopoly effects can only be addressed through a clear policy and regulatory framework. The merger review process is not suitable for this purpose. Indeed, it is likely that the continuation of mergers within the industry will only further highlight the need for a regulatory solution.

- 3.52 With the exception of merger control, competition law is by its nature ex-post - that is to say, it applies to behaviour which has already occurred. Competition law investigations are by their nature lengthy (the European Commission estimates that the average duration of an abuse of dominance investigation is 31 months⁷⁹), and do not in themselves achieve redress for individual consumers. It is aimed at sanctioning illegal behaviour by operators in the market. Many of the competition problems in the waste market, however, are structural in nature. This means they arise from inherent features of the market, rather than from the actions of the participants. For instance, economies of scale and density mean that waste collection markets display natural monopoly characteristics and make market entry less attractive for new entrants or for existing operators in neighbouring geographical areas. Problems in long-term monopoly markets are generally better solved through ex-ante regulation - that is, rules which are applied up-front to an organisation's behaviour - rather than ex-post detection and punishment. Similarly, the problem of unserved markets - that is, where no operator has been found to offer a service - cannot be solved through competition law.

Key findings

- 3.53 The key findings of this chapter are summarised as follows:
- **The market structure and supporting regulatory regime in Ireland is atypical. The approaches adopted by other European countries are more closely aligned to the practical realities, consumer needs and the economics of waste collection.**
 - **Environmental policy is the primary focus of the current regulatory regime. However, certain regulatory interventions to achieve environmental objectives by households have been difficult to implement in the current market structure.**

⁷⁹ <https://globalcompetitionreview.com/benchmarking/rating-enforcement-2017/1144844/european-unions-directorate-general-for-competition>



- The current regulations that are applicable to household waste collection do not cover economic considerations or any areas that relate to the operation of the market. These considerations are not assessed as part of the operator permit management process.
- It appears that authorities have limited enforcement mechanisms to address non-compliance and the fragmented regulatory regime presents a further challenge in standardising the approach taken by the State.

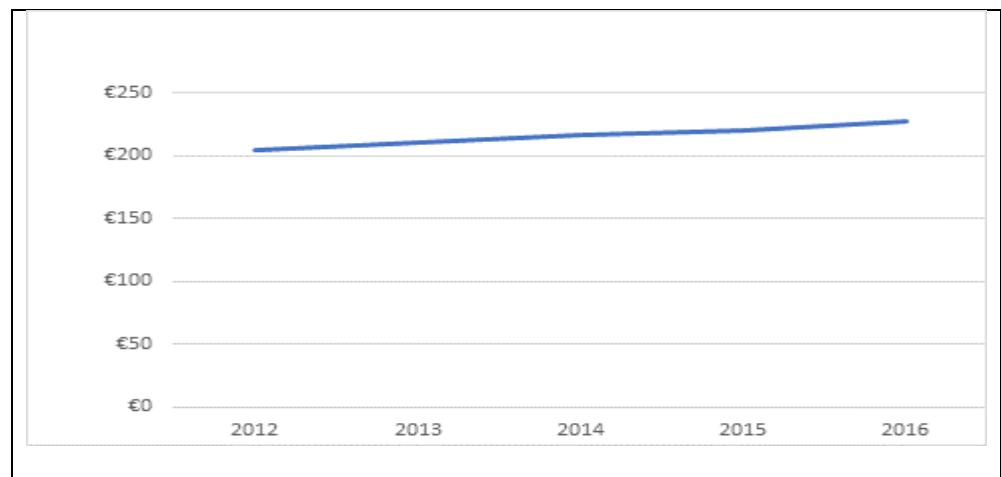
4. The consumer perspective

- 4.1 This chapter presents findings in relation to consumers' experience in the sector, including trends in household charges, an analysis of participation rates and switching; and an overview of reported customer service issues. It also details previous work in relation to consumer contracts regarding potentially unfair terms.

Household charges

- 4.2 The CCPC has assessed the level of household charges from 2012 to 2016 to develop an initial indication of average national charges. This analysis has used the average operator revenue data received from operators in 11 local authorities, as part of this study. The CCPC notes that the average household charges represent a lower bound estimate of national average household collection charges, as the sample was skewed towards the Dublin region, where the collection charges are the lowest in the country.
- 4.3 The findings indicate that the average annual household charge for waste collection, when adjusted for inflation, was €228 in 2016. This represents an increase of 11% from 2012 levels.

Figure 4: Average household waste collection charges 2012-2016



Source: CCPC analysis of surveyed operators

- 4.4 New pay-by-weight charging structures have been in place since July 2017 and flat rate charges are being phased out. A Price Monitoring Group (PMG) was set up by the Department of Communications, Climate Action and Environment (DCCAE) in September 2017 to monitor⁸⁰ waste collection charges during the phasing out of the flat rate charges. The PMG's June 2018⁸¹ market analysis concluded that there were no uniform charging arrangements across operators and a total of 47 different types of charging plans were identified. Broad price stability has been observed in waste collection during six months of monitoring from January to June 2018.
- 4.5 The CCPC commissioned an external econometric analysis⁸² to assess the impact that competition was having on household waste collection charges⁸³. The findings, which were based on a combination of National Waste Collection Permit Office (NWCP), CCPC compiled operator data, and geographic information, concluded that:

“Each of the structural variables can be indicative of competitive pressure inside local authority areas. We find that more competitors inside a local authority area do reduce revenue per kg per household. We also find evidence of monopolistic power that should be investigated further. The reallocation of households during a year from one permit holder to another inside a local authority area could be a sign of easy switching of households among permit holders, but if reallocation is coordinated by the permit holders to reduce costs then this could have the opposite effect on revenues per kg per household. We find indirect evidence that this is happening. Competition from recycled and organic waste should bring down revenues per kg per household, but we find that revenues are rising with the share of organic and recycling waste. Finally, having a high density of households in the local authority area should reduce collection costs and competition should pass on the benefits to the household in terms of reduced revenue per kg per household. The presence of monopolistic power inside catchments of local authority areas seems to prevent these benefits being passed on to the consumer. Our results are indicative

⁸⁰ The PMG monitors 26 service providers which comprises 19 individual companies.

⁸¹ <https://www.dccae.gov.ie/en-ie/news-and-media/press-releases/Pages/As-flat-rate-services-are-phased-out,-prices-remain-stable---PMG.aspx>

⁸² The full report is provided in Appendix B.

⁸³ The analysis was carried out after controlling for key cost variables such as density of households, residual waste generation, organic waste generation, dry mixed recyclable generation and operator specific effects.

of monopolistic tendencies. More evidence is required to prove without doubt that this is the case.”

- 4.6 It is recognised that the conclusions that can be drawn from this analysis are limited by the lack of data at geographic and regional level. However, they are useful in giving an indication of results in areas where there is competition versus areas where there is none.
- 4.7 These findings should be considered within the context of current market characteristics. The declining number of operators indicates a gradual move away from side-by-side competition towards greater concentration. The above findings would suggest that, over time, as operators leave the market, this will allow monopoly providers to increase their charges.

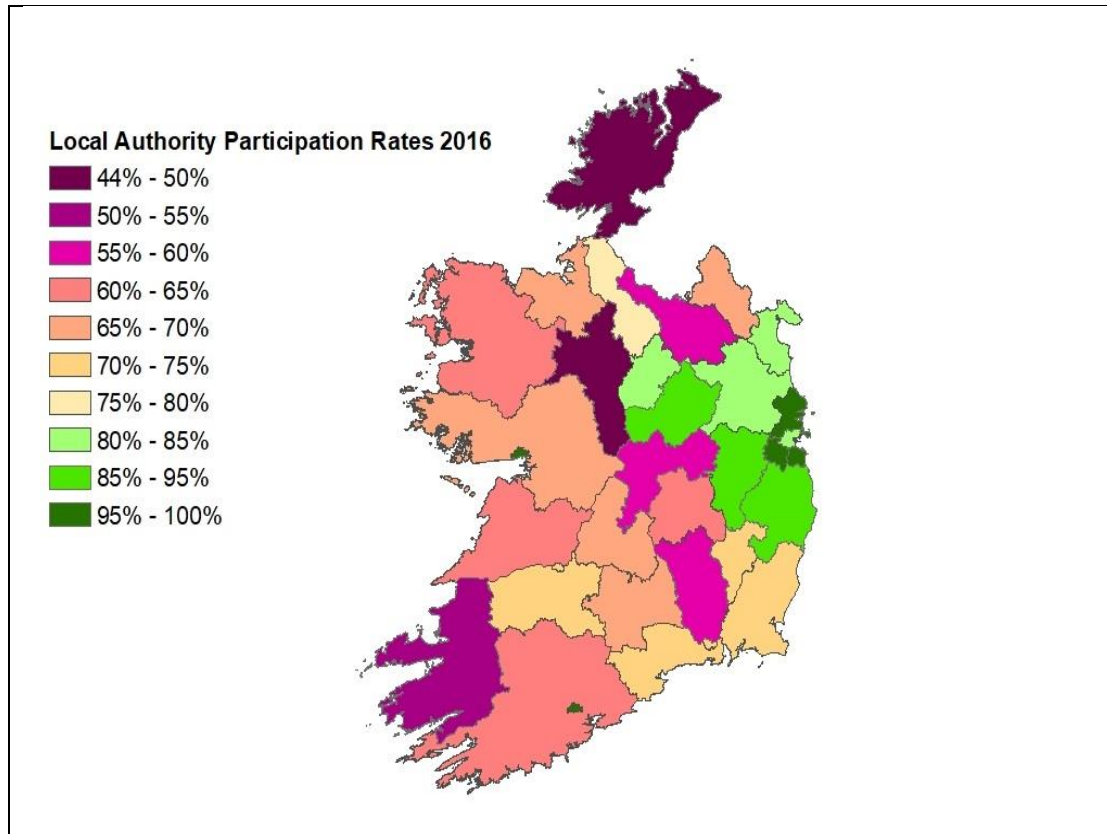
Market participation

- 4.8 There is currently little data available on the number of households that do not have a collection service. The CCPC has developed an initial estimate based on an analysis of NWCPO and Central Statistics Office (CSO) census household data, which suggests a non-participation rate of 23%⁸⁴. This rate may also include those households who share a bin, which the CSO has estimated is 4% of households⁸⁵. 9% of the respondents to the market research indicated that they have no waste collection service. While the CCPC considers that the data obtained using NWCPO and CSO census household data is the more accurate measure, further data is required to precisely determine the proportion of households with no service.
- 4.9 The data provided by operators to the NWCPO and CSO census data was interrogated further to develop an initial indication of participation rates in each local authority area. Figure 5 shows that areas with high population density, i.e. greater Dublin area, Cork city, Limerick city, Galway city, all exhibit high participation rates which contrasts with low participation rates for rural local authority areas.

⁸⁴ Total number of households who currently avail of a service (NWCPO data) divided by the total number of permanently occupied households, excluding apartments (2016 census data).

⁸⁵ <https://www.cso.ie/en/releasesandpublications/er/q-env/qnhsenvironmentmoduleq22014>

Figure 5: Household participation rates 2016



Source: CCPC analysis of NWCPO and CSO household data

- 4.10 Figure 5 suggests that waste collection participation is highest in areas with a population profile (i.e. high density and scale) that can support the financial viability of operators. This supports the findings in relation to the economies of scale and density (outlined in chapter 2), as commercial waste operators have little or no incentive to provide a service in an area where collection costs could reach a level that exceeds the price that households are willing to pay.
- 4.11 CCPC consumer market research found that 54% of households that did not avail of a service stated that this was because it was not available. This issue was specifically referenced in the response to the CCPC's consultation by the County and City Management Association (CCMA) where they indicated that rural parts of Wicklow, South Kerry and West Mayo do not have service providers. CCPC consumer market research indicates that 86% of householders who

do not have or use a kerbside collection service, transport their waste to collection points themselves.

- 4.12 A further consequence of the lack of service providers is that in order to avoid incurring the cost and inconvenience of transporting their waste, some households may resort to illegal forms of waste disposal (e.g. burning or dumping). Of the respondents to the CCPC market research who stated they did not have a service, 2% indicated that they dump their waste, with 1% stating they burn their waste. The CCMA has estimated that 50,000 households (or 3% of total households) dispose of waste in an unregulated manner. The CCMA detailed in its response to the CCPC consultation that in 2017, more than €7 million was required to deal with all illegal dumping, which includes dumping by households.
- 4.13 Further research is required to quantify the actual scale of this problem. In this regard, Sligo County Council (with support from the Connacht/Ulster Waste Enforcement Regional Lead Authority) launched a pilot project in March 2017 to address illegal dumping of domestic waste. The Council noted⁸⁶ that 10,000 households out of a total of 26,000 did not avail of a collection service. The aim of the pilot project is to create a register of all accounted households (based on household eircodes, with information on household activity provided by waste operators as part of their quarterly returns). Other key actions include education/awareness and a social media campaign for households; follow up with unaccounted households and an enforcement process. It is being proposed that the project will form a model of best practice that other local authorities can adopt. This project has not published findings at the time of writing (September 2018).

Switching

- 4.14 In Ireland a significant number of households can only obtain the services of one operator. Consumer market research found that 18% of households nationally and 25% in the Dublin region⁸⁷ did not have the option of more than one service provider. The findings in relation

⁸⁶ Provided in application for funding.

⁸⁷ Note this is the rebalanced proportion which excludes those who indicated they did not know whether they had more than one option of a service provider.

to the Dublin region may be due to the manner in which local authorities exited the market, with the service in several densely populated areas being sold to single providers.

- 4.15 Consumer market research indicated that 11% of consumers with a choice of operator had switched waste provider in the previous 12 months. This is slightly less than the switching rates of 15% for other utility markets (i.e. electricity and gas)⁸⁸. While the majority (83%) switched to obtain lower charges, the financial benefits of switching are relatively low as switchers pay, on average, €17 less per year than those who have not switched.
- 4.16 65% of households indicated a preference for a choice of operator, with 60% of those households indicating that the ability to have a choice, in itself, was the basis for this preference. 53% stated that their preference is based on it being cheaper than having a single operator. However, this finding should be qualified by the finding that 26% of respondents do not know how much they are paying for waste collection.

Consumer contracts

- 4.17 One of the CCPC's predecessor organisations, the National Consumer Agency (NCA), initiated a review of the terms and conditions in use by a number of operators in 2012, in order to assess compliance with the EU Unfair Terms in Consumer Contracts Regulations⁸⁹.
- 4.18 As described in the document detailing the findings of the review, "This sector was chosen based on a number of factors including, market surveillance and intelligence, complaints received by the NCA to our consumer helpline, and an assessment by the NCA senior management team that this sector, due to the prevalence of such contracts nationally, had the potential to negatively impact on the welfare of consumers".
- 4.19 The examination uncovered a number of issues of concern, primarily related to the widespread use of potentially unfair terms. In the NCA's view, operators "were either not aware of their responsibilities when using standard form contracts or were not even aware of the origin of some of the terms upon which they were seeking to contract with consumers. There was evidence of duplication both in terms of wording or similar effect which would

⁸⁸ CCPC, "Consumer Switching Behaviour Research Report" (2017).

⁸⁹ <http://www.irishstatutebook.ie/eli/1995/si/27/made/en/print>

suggest a possible ‘cut and paste’ approach to contract formulation”. The NCA contacted seven of the largest (by volume of customers) operators nationwide and invited them in to discuss issues of concern.

4.20 In the period December 2012 to March 2013, the NCA secured Undertakings⁹⁰ with regard to unfair terms from each of the seven operators namely, Greyhound, Panda, Oxigen, The City Bin Co, Greenstar, Country Clean and AES. Some of the contract terms which were of concern related to:

- Unilateral variation terms
- Penalty clauses including the cancellation fee which, in most cases, was an arbitrary figure with no justification as to how the amount was arrived at
- Excluding liability for breach of contract
- Indemnity clauses
- Excessive charges
- The structure of the contract and the language used in the terms and conditions.

4.21 The Undertakings, essentially, obliged each operator to:

- Refrain from using potentially unfair terms and conditions in its standard form contract
- Amend its standard form contract so as to address any unfair aspects within a given timeframe
- Refund consumers who had already made payments related to potentially unfair terms
- Communicate the changes to its standard contract to its consumers within a given timeframe.

4.22 All Undertakings were included in the Consumer Protection Lists published and publicised in December 2012 and June 2013. The NCA’s Consumer Enforcement Division reviewed the changes required in the Undertakings several months after agreement and for the most part, operators had met their obligations.

⁹⁰ <https://www.cccpc.ie/business/enforcement/consumer-protection/undertakings/>

- 4.23 Due to the ongoing nature of the complaints concerning this sector, the CCPC has continued to remind waste operators of their obligations under consumer protection and competition legislation, and formal correspondence was issued in 2016 and again in 2017.

Customer service

- 4.24 Regulations were introduced in 2015⁹¹ which mandated an operator customer charter as a form of consumer protection tailored to the household waste collection sector. The Regulations included a requirement that operators prepare a customer charter before a permit would be issued/renewed by NWCPO. Schedule Six of the Regulations provides a range of information that an operator has to include in relation to customer service standards; customer communication; householder responsibilities; pricing, charging mechanism and access to account information; complaints procedure/dispute resolution; education and raising awareness; termination of service/refunds/changing service providers; changing equipment and ownership of bins. The full text of Schedule Six is provided in Appendix D.
- 4.25 Operators are required to display their customer charter on their website. However, there is no requirement in the Regulations that operators have to comply with the terms and conditions of their customer charter.
- 4.26 After it has been presented to the NWCPO, the adherence to the customer charter or indeed the continued display of it on operator websites is not monitored. The CCMA stated in its response to the CCPC consultation that the sanctions for non-compliance by operators were not clear and that consumers had no direct point of contact in relation to complaints about waste operators.
- 4.27 Inadequate consumer protection, in terms of the lack of both sanctions for non-compliance and protocols for the escalation of complaints, was highlighted by several respondents to the CCPC consultation.
- 4.28 The CCPC operates a consumer helpline that provides information to consumers to inform them of their rights and help them to resolve issues with traders. Analysis of contacts

⁹¹ Waste Management (Collection Permit) (Amendment) Regulations 2015 - S.I. No. 197 of 2015.

received by the consumer helpline in relation to waste collection indicates that contacts from consumers increased in 2016 when DCCAE announced the mandatory introduction of pay-by-weight charges. From 2015 to 2017, the CCPC received a total of 741 contacts relating to the waste sector. 424 of these contacts (59%) were received in 2016, with 37% of the 2016 total received in a four-week period following a Government announcement on pay-by-weight. Queries concerned operators increasing standing charges, changing contracts mid-term and the lack of sufficient information provided to them on the proposed changes.

- 4.29 A pattern is also evident in the contacts which the CCPC receives concerning waste operators, which spike when there is a significant announcement of policy change, as evidenced by the volume of consumer complaints received in 2012 with the exit of the Dublin local authorities from directly providing waste collection services. In 2015/2016 when the proposed arrangements for pay-by-weight were announced and again in mid-2017 with the announcement of the decision to phase out flat fees, the CCPC observed a notable increase in contacts from consumers.

Key findings

- 4.30 The key findings of this chapter are summarised as follows:

- **A significant number of households do not have a choice of operator and therefore, the normal pressures exerted in a market that is designed to be competitive, do not exist.**
- **Householder buyer power in the market is limited by two factors – not having an alternative provider, and the fact that household waste collection is a standard service, from a consumer’s point of view.**
- **Current switching levels suggest that, even in the areas where households do have a choice of operator, consumers are not switching to a degree that would have a meaningful impact on operators.**
- **A significant number of households cannot or do not avail of a waste collection service. In the current market structure, the viability of operators in a given area**



is influenced by route density and collection costs. The specific characteristics of sparsely populated or rural areas mean that they are less economically attractive. These characteristics are structural features of the market and are unlikely to change.

5. Conclusions and recommendations

Introduction

- 5.1 The preceding chapters have reviewed the operation of the household waste collection market from various relevant perspectives including the structure of the market, the current regulatory and enforcement regime and the experience and behaviour of consumers. A detailed programme of research was undertaken, covering the economics of waste markets, the approaches of other EU countries and the development of policy in Ireland. In addition, a consultation process was undertaken to obtain feedback from stakeholders.
- 5.2 The study findings and the related research detailed in chapters 2 to 4 are considered together in this chapter, where issues in the household waste collection sector are outlined. These issues form the rationale for the recommendations made. These recommendations are intended to ensure that consumers are adequately protected and that the market issues identified are addressed in a way that achieves the desired societal outcomes.

Identified issues

- 5.3 **The market is highly concentrated in places, giving operators considerable market power**

Applying a side-by-side competition structure to this market appears to be based on the premise that competition will automatically occur and continue between operators on a route, thereby delivering positive outcomes for households. However, the data indicates that between 18% and 25% of households have no choice of operator, and nationally, the CCPC has estimated that 20 operators⁹² service 90% of households that have a collection service. A further cohort of households has no access to a collection service.

Initial CCPC economic analysis suggests that the level of competition (as measured by the standard HHI model) at local authority level is weak in most areas of the country, and may be even weaker at local or route level: the presence of three operators in a local authority

⁹² The number of operators is based on the household licences issued to companies by the NWCPO. These companies may not all be trading in an independent capacity.

area, for instance, may be a misleading indication of the level of competition, since they may all serve different routes.

5.4 **The Irish household waste collection market is atypical in a European context**

The EU countries surveyed by the CCPC⁹³ have continued to maintain a high level of control by retaining ownership of waste, which the State manages by either collecting the waste directly or by contracting it to the private sector, using a competitive tendering process. By taking this approach in working with the private sector, which is known as competition for the market, these EU countries provide service provision models that combine the benefits of competition with the efficiency of having a single operator on a route.

The CCPC has not identified any specific characteristic of the Irish market that require Ireland's market structure model to be different from other EU states. The possible risk of service disruption and concern that medium sized operators would be disadvantaged relative to larger operators in tendering competitions were noted in the 2012 Policy as reasons for maintaining the present regime. A review of the current Government policy is the subject of one of the recommendations of this study, which is outlined later in this chapter.

5.5 **The household waste collection market exhibits characteristics of a natural monopoly**

A market is said to be a natural monopoly if its total output can be produced more cheaply by a single operator than by two or more firms. Natural monopolies tend to be characterised by significant economies of scale, high fixed costs and a large cost advantage for a single operator. This means that it is more efficient that one operator supplies the market. Encouraging new entrants when a natural monopoly exists creates a potential loss of efficiency, as a new entrant must duplicate all the fixed costs to supply the market.

This is the case with household waste collection, where high set up costs are required to provide a route-based service, where it is usually more efficient for one operator to provide a service on a route. The economies of scale and density which are prevalent in household waste collection markets mean that, at some local level, the market for household waste

⁹³ Estonia, France, Finland, Italy, Latvia, Lithuania, Poland, Slovakia, Sweden, UK.

collection, which displays characteristics similar to other network and transport markets (such as economies of scale and density) is a natural monopoly

This natural monopoly characteristic of the market means that side-by-side competition is unlikely to be sustained over the long term, as operators consolidate and as market tipping effects reinforce the advantage of stronger operators over weaker ones.

5.6 The current market structure benefits incumbents

One of the key benefits of side-by-side competition should be that consumers have a choice of operator. In a competitive market, i.e. one without barriers to entry or natural monopoly effects, a reduction in the number of suppliers would be expected to lead to market power expressed through price increases, which would in turn attract new entrants - in other words, the market would self-correct. However, this is not the case in the household waste collection market.

The viability of side-by-side competition is undermined by the route-based nature of the service. An incumbent operator will not want to lose customers to a new entrant, as it will reduce the revenue available to cover its costs. While price-cutting is a common reaction of incumbents to a new entrant (and one which benefits consumers), in this market, aggressive and targeted price-cutting can make the cost of customer acquisition prohibitively high for new entrants. While such pricing responses by incumbents may not be sustainable in the long term, they may succeed in preventing new entrants gaining a viable market share on a route, leaving consumers with no alternative to the incumbent supplier.

5.7 The market structure acts as a barrier to entry

Side-by-side competition itself is cited as a barrier to entry by and for potential entrants, with the market supporting incumbents (who have stated a preference for the current structure) seeking to maintain the status quo. New entrants face high costs to enter a market and compete with an existing operator, and there is no certainty that the investment in market entry will pay off. Conversely, potential entrants express a preference for entering the market through a competitive tendering process, which gives certainty over the route they will be contracted to service, the number of households and the term of the contract, which creates

stable revenue flows and a more predictable, and therefore attractive, operating environment.

5.8 Operator numbers are falling and are likely to continue to do so

The CCPC has estimated that between 18% and 25% of households have only one operator providing a service in their area. In effect, for those households, side-by-side competition between operators does not exist - the number of active operators in the market has declined by 23% from 2012 to 2016.

Operators seeking to expand their routes by entering a market already served by another provider will encounter increased costs and low revenue returns for what could be a significant period of time. A more immediate and less risky growth strategy is to acquire another operator, which would appear to be the preferred approach in Irish markets. The CCPC expects that the number of areas with monopoly providers will increase in the future, given the trend towards consolidation. This process is likely to lead to an increase in the number of merger reviews in the industry. The limitations of the merger review process in addressing specific issues in the household waste collection sector have been discussed at 3.5.

5.9 The current market structure is impacting the State's ability to implement environmental policy

The 2012 Policy signalled that "household waste collection will be organised under an improved regulatory regime to address a number of problematic issues"⁹⁴. While these regulations predominantly focus on environmental outcomes, their rollout is intertwined with side-by-side competition, where the adoption of appropriate practices is dependent on operators in the market.

In practice, operators appear to have a high level of autonomy in delivering key environmental targets, such as the roll out of brown bins and pay-by-use charging structures. The mandatory provision of a dedicated bin for organic waste has been a legislative

⁹⁴ Department of Environment, Community and Local Government, "A Resource Opportunity - Waste Management Policy in Ireland" (2012), page 3.

requirement since 2007 and the Food Waste and Bio-waste Regulations⁹⁵ in 2013 required that by 2016, brown bin provision would be in place for all households situated in a population agglomeration over 500. The CCPC has estimated that by 2016, 50% of all households with a scheduled service had an organic bin, based on an analysis of National Waste Collection Permit Office (NWCPO) data.

The policy that charges should be in line with usage was first introduced in 1998⁹⁶. However, the phasing out of flat fees was not put in place until July 2017. Operators are complying with current pay-by-use regulations, and the most recent report by the Price Monitoring Group confirmed this⁹⁷. However, the weight limits applied by individual operators may be so high as to not achieve the intended policy objective, which is to incentivise customers to stream their waste. These examples suggest that operators having responsibility to deliver environmental targets may be producing limited results.

5.10 The regulatory regime is fragmented and incomplete

The approach being taken by operators in relation to the regulatory requirements, as outlined above at 5.9, may also be due to the fragmented implementation of environmental regulations which has been tasked to a large number of State organisations, with resulting differing approaches to enforcement across the country. Currently, withdrawing a permit is the primary enforcement tool provided to address operator non-compliance. This “nuclear option”, if exercised, would result in service disruption or cessation, which, in reality, limits its usefulness from an enforcement perspective.

5.11 A sector-specific complaints procedure is not in place to resolve consumer issues

As evidenced from the CCPC’s market research, waste collection would not appear to be an issue of concern for most consumers, who seem to be happy with their service. However, the CCPC is aware, through contacts from consumers that poor customer service by some operators does arise as an issue, particularly when new policy initiatives are rolled out. The

⁹⁵ European Union (Household Food Waste and Bio-waste) Regulations 2013 - S.I. No. 71 of 2013.

⁹⁶ Department of Environment and Local Government (“DELG”), “Waste Management - Changing Our Ways” (1998). Also covered in (DELG), “Delivering Change - Preventing and Recycling Waste” (2002) and (DELG), “Waste Management - Taking Stock and Moving Forward” (2004).

⁹⁷ <https://www.dccae.gov.ie/en-ie/news-and-media/press-releases/Pages/Prices-remain-stable-as-flat-rate-services-no-longer-offered-by-monitored-firms.aspx>

ability of many consumers to switch to an alternative provider, or to obtain satisfaction from their operator when they have difficulties with their service or charges, is limited.

While a customer charter was introduced in 2015, it has no legal standing in terms of operators adhering to its requirements. There is currently no complaints handling escalation procedure, as with other utilities. It was noted as part of this study that there is no specific contact point for those consumers who have issues with their operators. Customers can only resort to general consumer protection legislation, which is not sufficient to address all of the issues they experience with operators. For example, should households experience any difficulties with charging arrangements, they are dependent on their operator to resolve them.

Operators have a significant amount of discretion in the type of charging plans they provide. The State currently does not have an oversight role on the appropriateness of operator pricing models and their effectiveness in achieving national environmental objectives.

5.12 Most households do not, or cannot, influence operator behaviour

Consumers with a choice of provider have the potential to influence the behaviour of their supplier, particularly when a firm is offering a service that is deemed not to be acceptable. The ability to switch is a practical benefit of, and driver, of competition, but does not appear to be a significant feature of the household waste collection market. Nationally, even where alternative operators are available, this is a market with low switching levels, which could be a consequence of the relatively low financial returns from switching⁹⁸, as price is the main reason for changing suppliers.

5.13 No service available to many households

Based on NWCPO and Central Statistics Office data, the CCPC estimates that approximately 23% of households do not have a waste collection service. Areas with low population density are particularly affected, which again reflects the economics of waste collection, as the cost to an operator of providing a service on a low density route could be greater than the price households on the route are willing to pay. This has further consequences for the ability of

⁹⁸ CCPC consumer research indicates that the households who have switched achieve additional savings of €17 per annum.

these households to dispose of their waste in an environmentally friendly manner. While a portion, potentially a large proportion, may not wish to avail of a service, further consideration should be given to those who would avail of a service, were it available. Further data is required to precisely determine the proportion of household with no service.

Rationale for economic regulation

- 5.14 The household waste collection market is expected to deliver social, economic and environmental outcomes. The findings of this study show that these outcomes are not all being effectively delivered under the current market structure. The market is moving towards a service provision model of unregulated monopoly operators.
- 5.15 The State currently has no sector-specific economic levers to ensure that its strategic policy on waste collection service for households is delivered. Without economic regulation, this gives operators the opportunity to exercise market power, whether through price increases or deterioration in environmental or consumer standards.
- 5.16 The Government's 2013 Policy Statement on Sectoral Economic Regulation (The Statement)⁹⁹, is useful in considering how issues identified in the household waste collection market can be addressed. The Statement defines consumer interest as "providing end users with sustainable competitively priced access to quality services while also providing a sustainable level of long term investment¹⁰⁰."
- 5.17 The Statement also highlighted "the challenge faced by regulators in balancing their diverse and often conflicting interests to ensure quality services for end users and the efficient delivery of infrastructure investment¹⁰¹." Regulating a specific sector can be difficult and it is for this reason that it is only undertaken as a last resort due to actual or expected market failure.
- 5.18 In considering the appropriateness of economic regulation, it is useful to refer to the telecommunications sector as a tested example. National regulatory authorities are obliged

⁹⁹ Department of the Taoiseach, "Regulating for a Better Future - A Government Policy Statement on Sectoral Economic Regulation" (2013).

¹⁰⁰ Ibid., page 9.

¹⁰¹ Ibid., page 6.

to analyse certain markets for electronic communications networks and services as identified in the European Commission recommendations (2014 Recommendation)¹⁰². National regulatory authorities can also regulate markets not identified in the 2014 Recommendation subject to certain conditions being satisfied. These conditions are known as a 3-criteria test (3CT) and are set out in the European Commission's 2007 Recommendation¹⁰³. 3CT sets out three cumulative criteria which are used to determine whether the market in question is susceptible to ex ante regulation. Ex ante regulation refers to detailed and specific obligations imposed by regulatory bodies which operators must comply with - it does not depend on an analysis of past behaviour. Consumer and competition law enforcement, on the other hand, occurs ex post; it sets out a series of general prohibitions; any penalties or remedies can be applied only after the behaviour has already materialised.

- 5.19 The criteria in the 3CT, and a high-level assessment of how they apply in the household waste collection market, are set out below:

Criterion	High-level assessment of the household waste collection market
1. The presence of high and non-transitory barriers to entry	This study has identified both structural barriers to entry in the form of economies of scale and density and strategic barriers to entry that limit both large-scale market entry by potential new players and more localised market entry by neighbouring providers. Furthermore, the current market structure benefits incumbents.
2. A market structure which does not tend towards effective competition within the relevant time horizon	This study has found that the market is highly concentrated in places, giving operators considerable market power. In addition to the market exhibiting many natural monopoly characteristics, the number of operators has been steadily declining and is expected to continue to do so.

¹⁰² Commission Recommendation of 9.10.2014.

¹⁰³ The Commission Recommendation of 17 December 2007 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services (the "2007 Recommendation").

3. The insufficiency of competition law alone to adequately address the market failure(s) concerned	This study has found that many of the competition problems in the waste market are structural in nature arising from inherent features of the market, rather than from the actions of the participants. Problems in monopoly markets are generally better solved through ex-ante regulation, rather than ex-post detection. Similarly, the provision of a service to those who want, but cannot avail of one, cannot be delivered by competition law.
--	--

- 5.20 The economics that underlie utility markets also indicate that these type of market issues can be addressed through proactive, ongoing economic regulation. To date, environmental regulation has been the key focus of the State but the findings of this study also show that until a more complete regulatory framework is put in place that takes account of the current market structure, household environmental targets may also not be fully realised.
- 5.21 This study shows that internationally, the prevailing approach to private provision of household waste collection services is through competition for the market. However, decisions to date in Ireland have not chosen this route. Therefore, this study's recommendations are made in the context of previous Government decisions and the range of prevailing market conditions, including markets with side-by-side competition, monopoly providers and areas of no service.
- 5.22 It is the CCPC's view that economic regulation would deliver multiple benefits, including:
- Expertise: apply economic utility approach to deliver a well-functioning market
 - Balance: manage day-to-day activity with long-term sustainability
 - Informed decision-making: develop an evidence base to support decisions
 - Increase State control and influence: help consolidate the role of the State and ensure greater co-ordination with other State organisations. Increase the State's available levers in the sector to meet social, environmental and policy goals.
 - Planned and phased change: implement regulations based on evidence and consultation that is mindful of market dynamics
 - Stability: deliver transparent regulation in a manner that supports long-term investment.



- 5.23 The CCPC recommends that a national economic regulator be established with the principal objective of developing over time, an efficient, sustainable and commercial model of domestic waste collection in Ireland, in a manner that protects the interests of consumers and adheres to the principles of better regulation¹⁰⁴. In the CCPC's view, putting in place a regulator would be the most appropriate way to manage the complexity of this market so that the best economic, environmental and societal outcomes can be delivered in a manner that balances the interests of the State, private sector and households.

¹⁰⁴ Department of the Taoiseach, "Principles of Better Regulation" White Paper (2004). Six principles are set out covering necessity, effectiveness, proportionality, transparency, accountability, consistency.

Recommendations

1. Conduct a review of 2012 Policy

- 5.24 The CCPC is of the view that the findings of this study indicate that it is timely to review the Government's 2012 Policy document, "A Resource Opportunity - Waste Management Policy in Ireland." In the 2012 Policy, after detailed consideration of the merits of various options, the side-by-side competition model was endorsed. Since 2012, as outlined in this study, the number of operators has declined, by 23% between 2012 and 2016. In addition there is a further six years of market experience to draw upon. The CCPC suggests that this review could be usefully informed by the evidence collected in the course of this study. Furthermore it is the CCPC's view that the review be conducted in the context of the recommendation to establish an economic regulator, as detailed below.

2. Establish an economic regulator for household waste collection

- 5.25 Should the Government decide to introduce legislation to establish a national waste regulator, it is vital that the regulator's role be clear and legally robust in terms of its functions and the tools it has to discharge its responsibilities. The CCPC proposes the following for consideration in this regard (the functions below are closely interlinked therefore there is some repetition across the proposed functions):
- i. Economic licensing: A system of economic licensing should be introduced. The regulator with responsibility for the licensing system should be granted a full suite of appropriate tools which are underpinned by an unambiguous and robust legal framework. This should enable the regulator to work with operators and, where required, direct them to desired outcomes. These tools should include:
 - a. The power to grant an exclusive licence or licences in specified geographic areas. Depending on the characteristics of the relevant local area this may take the form of a competition for the market or a licence for a number of operators in a side-by-side setting. This point is expanded upon below in iii.
 - b. As part of a., the power to design and allocate routes where the evidence suggests it would yield effective and appropriate outcomes.

- c. The power to set price controls where appropriate. There may be circumstances where it is appropriate to introduce price controls for a period of time, for example, in a situation where there is a monopoly provider, with considerable market power.
 - d. The power to levy fines for specific breaches in order to ensure maximum compliance with the regulatory framework.
- ii. Data collection and analysis: Local markets have evolved from the previous structure, which was on the basis of each local authority. One of the functions of a regulator should be to make provisions for data collection. This is a key first step for the regulator and would inform all future decisions regarding appropriate intervention in geographical areas where competition is not providing desired outcomes for households and/or operators.

Data must be collected and recorded on a granular (i.e. route) level to ascertain the number of active operators and concentration levels. Data should also be collected that includes apartments, and those households that do not currently have a collection service. This will allow the regulator to identify monopoly areas, identify areas where an operator has significant market power, or where no service is provided.

- iii. Market design:¹⁰⁵ This would require a review of all local markets to identify a design that best meets policy objectives including efficiency, environmental objectives and customer service and ensures the economic viability of routes. Market design would look at international best practice and set out a glide path, outlining a reasonable timeframe for changes and providing all parties with clarity for the industry over the medium term. A regulator would consider market designs that are most appropriate in response to various market characteristics, for example, in monopoly areas, and areas with no service. Possible market design proposals could include:
 - a. Introducing targeted competitive tendering for certain areas.
 - b. Creating markets by combining less commercially viable areas with more commercially viable areas, thereby increasing the provision of a household waste collection service.

¹⁰⁵ As alluded to in both i and ii, above.

- iv. Consumer protection: Consumer protection needs to be improved in this sector and industry norms for customer service are required to ensure that the rights of consumers are clearly understood and applied by operators. This will require that the current customer service charter is supported by a complaint-escalation mechanism with appropriate penalties for non-compliance, including fines. This requirement to raise the levels of customer service could be covered within the economic licensing framework. Examples of such frameworks are readily available in regulated industries such as telecommunications and energy.

Tendering for the market could also be designed to address previous concerns about service disruption, by building the certainty of having a supplier of last resort into a tendering process, which would increase the security of supply and protect consumers from being left without service at short notice.

3. Ensure that all of the State's resources are co-ordinated to deliver optimal outcomes for this market

- 5.26 This study shows that there are a large number of State bodies with responsibilities in this sector. The introduction of a new regulatory regime should also have a central objective to use these existing bodies in a manner that creates efficiencies, wherever possible. Consideration should also be given to utilising and extending existing structures to create a new regulatory regime.
- 5.27 To reduce overlap and regulatory burden, the economic regulator should be explicitly empowered and required to co-operate with other bodies (environmental regulators, local authorities, National Waste Collection Permit Office and other relevant bodies) where this will assist in meeting their common objectives.
- 5.28 The CCPC is of the view that a close working relationship should be established between the economic regulator and the CCPC, through a co-operation agreement, mirroring the structures in place with other sectoral regulators. The terms of such a co-operation agreement could be similar to those the CCPC has with economic regulators such as the Central Bank of Ireland, Commission for Communications Regulation etc., and could include



the requirement to share information, market intelligence and a requirement to consult with the regulator in relation to any notified mergers or acquisitions.

- 5.29 In addition, the respective responsibilities of all bodies should be considered in determining the role and function of the sectoral economic regulator and where logical and efficient, certain functions should be transferred to the regulator on a legislative basis.

6. Appendices

A. Terms of reference

B. Econometric report

C. Public consultation responses

**D. Waste Management (Collection Permit) (Amendment) Regulations
2015: Schedule Six**

E. Results of consumer market research

A. Terms of reference

CCPC Study on the Operation of the Household Waste Collection Market

The study will assess the nature and scale of consumer and operator issues in the household waste collection market and consider if the introduction of an enhanced regulatory regime could efficiently address these issues, in the short and long term. It will include the following elements:

1. Research on current issues in the household waste sector

This will involve an analysis of:

- The evolution of the household waste collection sector
- The CCPC's consumer and competition related complaints
- Data on consumer and operator issues as compiled by the Department of Communications, Climate Action and Environment
- Market research to compare consumer experiences across the country.

2. An economic assessment of the household waste collection market

Where problems have been identified, this will include the following:

- Analysis of the market shares of domestic waste collectors
- Analysis of concentration ratios for selected geographic markets
- Analysis on the ease of market entry
- An assessment of household switching rates
- Analysis of household charges/operator cost regime (scope of analysis dependent on what data can be collected between now and end year).

3. An overview of household waste collection in other countries

Where feasible, the study will examine available evidence on the operation and regulation of the household waste collection market in selected other countries.

4. Recommendations

Based on the evidence collected, the CCPC will make recommendations to address any systemic issues uncovered.



B. Econometric report

Econometric Analysis of the Irish Household Waste Collection Market

Note for the Competition and Consumer Protection Commission, April 4th 2018

Patrick Paul Walsh, Geary Institute for Public Policy, University College Dublin

Introduction

As part of their study of the Irish household waste collection market, the CCPC compiled quantitative information from a sample covering 69 household waste collection providers (permit holders) over 11 local authority areas in the State. These data (labelled RFI data henceforth) include information on household quantities, household revenues, household acquisitions and losses, and waste collected by bin type, by permit holder annually over the 6 year period 2012 through 2017. The data set is an unbalanced panel with significant non-reporting for some periods by some permit holders.

In addition to the RFI dataset, the CCPC have Local Authority data sourced from the national waste collection permit office (labelled LA data henceforth) covering the same 11 local authority areas in the State over the same period.

These data are used to conduct a preliminary investigation of the competitive pressure the current structures exert on the household waste collection market in the State and the possible nature of competition (or lack thereof) in this market.

We set out to model the permit holder's revenue per kg per household as an outcome of structural features of the market, controlling for unobservable time specific factors and permit holder random effects. Structural features include the number, or concentration, of competitors faced in a local authority area, the reallocation of households during a year from one permit holder to another inside a local authority area, the impact of competition from the two sided market (recycled share of collection) and the density of households in the local authority area which can give incentives to share out estates/geographical regions within local authorities to reduce costs of collection.

Each of the structural variables can be indicative of competitive pressure inside local authority areas.

More competitors inside a local authority, if they do not collude, should reduce revenue per kg per household.

The reallocation of households during a year from one permit holder to another permit holder inside a local authority area could be indicative of easy switching of households among permit holders, which should reduce revenue per kg per household. If reallocation is coordinated by the permit holders, for efficiency in costs, increased monopoly power could have the opposite effect on household revenues.

Competition from recycled waste should bring down revenues per kg per household, but monopolistic power should raise prices on the residual waste bin to keep revenues up while earning money on recycling.

Finally, having a high density of households in the local authority area should reduce collection costs, and competition should pass on the benefits to the household in terms of reduced revenue per kg per household. The presence of monopolistic power inside catchments of local authority areas may result in the benefits of high density of households in a local authority area not being passed on to the household.

Overall, our results even if consistent with monopolistic (competitive) tendencies, proof of such would require a more detailed analysis of the market for different sources.

The data

The merged datasets yield an unbalanced panel listing of:

- 69 firms (Permit holders)
- 494 observations
- 6 years (2012 – 2017)
- 11 Local Authority Areas.

A careful analysis revealed that the data covers all of the Dublin Local Authorities and includes all permit holders with significant market share. Some years (such as 2017) have better reporting of data than others. We do include a control for the time period in our permit holder level regression. The Local Authorities outside of Dublin offer us a well-balanced control group.

Considering the market share data (in terms of numbers of households) in the available LA data, the aggregate market share by local authority area of all those firms in the RFI data with non-reported RFI data was examined. This varied somewhat over years and local authority area, but

with only some exceptions, firms with missing RFI data accounted for a small share of the total local authority market.

Overall, we have a good representative sample of permit holders across local authorities in the Irish waste collection market.

Research objectives

Using the RFI dataset, this regression based analysis on permit holders endeavours to examine the effects that various structural indicators of competition, or monopolistic behaviour, has on pricing in the household waste collection market, controlling for various other unobservable factors.

$$R_{ijt} = \beta_0 + \beta X_{jt} + \sigma_t T_t + \xi_i + e_{ijt} \quad (1)$$

In particular, in equation (1), our dependent variable R_{ijt} for each firm i in each year t and local authority j , using available RFI data, is a measure of the **average revenue per KG (of residual and organic waste) per household inside a local authority for each permit holder**. This is computed as the total firm revenue from household kerbside waste collection divided by the average residual and organic weight in KG per household (i.e. total KG weight of residual and organic waste collected by a firm in a local authority area, divided by the number of households from which the firm collected waste in that local authority area).

The effects of structural factors X_{jt} include local authority market concentration, household density, excess reallocation (turnover in excess of firm net household acquisition rates), and firm waste diversity. We set out to estimate the impact of structural factors on firm average revenue per KG of residual and organic waste per household controlling for T_t time and unobservable permit holders random factors, ξ_i . The observed structural factors X_{jt} are measured as follows:

Local Authority Market Concentration: $1/n$ (where n is the number of firms with non-missing data in both the LA and the RFI datasets). This proxies the level of competition in the market (higher levels of concentration are indicative of lower levels of competition).

Local Authority Area Household Density:

LA_density = total number of households served by all firms in LA area / LA size in squared KM.

Local Authority Excess Reallocation (i.e. LA Reallocation rates NET of the cycle):

XS_Realloc = LA_Turnover -- abs(LA_Net)

Turnover is a measure of the total rates of households acquired and lost in a LA area in a given year. Net is the difference between the rates of acquisition and rates of loss in a LA area in a given year. XS_Realloc is the turnover net of the (abs) net cycle and is indicative of household switching in the market over and above the net business cycle.

Firm Waste Diversity (by firm in a local authority in a given year):

Firm Waste Diversity is computed as firm residual waste weight in KG in a local authority area as a share of total firm waste weight in KG (residual plus organic plus recycled waste) in a local authority area.

Econometric analysis and results

Controlling for unobserved permit holder heterogeneity, we use a random effects model to empirically model the effects of various local authority level structural factors and firm level factors on our dependent variable, while controlling for Year effects. Preliminary results are as below:

Regression Results

Table 1: Empirical Results from Permit Holder Regression

Dependent Variable R_{ijt}	OLS Regression	Random Effects Regression
Concentration (1/N)	9715 (2.5)*	8356 (3.5)*
Household Reallocation	7184 (1.0)	11622 (2.8)*
Bin Diversity	-16037 (4.4)*	-5169 (1.7)*
LA Density	4.09 (3.3)*	1.53 (2.2)*
Constant	8924 (2.6)*	2223 (0.77)
Permit Holder Random Effects	NO	YES
Year Dummies	YES	YES
R ²	0.26	0.22

No. observations	189	189
------------------	-----	-----

OLS regression results are included in the table. Here we discuss the results obtained from the random effects model.

The results indicate that the average revenue per KG per household in a local authority for a permit holder is driven by a set of structural indicators.

We observe that that on average Revenue is positively related to concentration in the local authority area as measured by $1/N$, where N is the number of competitors. Having more than two permit holders' is important for competitive pressure in the local authorities. This is true however small the additional players in the market are.

However there is a problem in the absence of choice. We also find that average revenue per KG per household in a local authority is positively related to the Excess Reallocation rate in the LA area. Household switching between permit holders is not reducing revenues on average. Competition between permit holders should have produced the opposite effect. The possibility that estates/geographical regions are being captured in terms of inducing household switching to produce monopolistic catchments within LA areas would merit further investigation of the market. This would be a very anti-competitive instrument used to generate more profits for the companies.

We also find that the savings from operating in high LA household density areas is not being passed on to households. It seems that having high household density which reduces the cost of household waste collection dramatically is not passed on to consumers and more importantly offers incentives to consolidate estates/geographical regions within LA areas into one permit holder. Again one should investigate further whether this type of monopolistic behaviour is really happening given our findings that that average revenue per KG per household by permit holder in a local authority is positively related household density in a LA area, controlling for other factors, this does suggest that cost savings do not seem to be passed onto consumers.

Finally, we find that the average revenue per KG per household in a local authority is negatively related to Waste Diversity in terms of the presence of the organic and recycling bin collection. Potentially the permit holders are getting revenues in another market for organic and recycling waste. This should be reducing the residual weight and revenues per household in a LA area. We find that the opposite is true. The permit holder is able to keep mainstream residual waste revenues up even in the presence of organic and recycling bin collection. This maybe another indication of monopolistic power that should be investigated further, however, this could be biased by the fact that in areas where no brown bin service is offered, operators have lower costs cause they have



one less collection, and hence a higher share of residual and therefore a higher waste diversity variable, decreases price due to permit holders passing on cost savings..

Conclusions

We set out to model the permit holder's revenue per kg per household within each local authority area as an outcome of structural features of the market, controlling for unobservable time specific factors and permit holder random effects. Structural features include the number, or concentration, of competitors faced in a local authority area, the reallocation of households during a year from one permit holder to another inside a local authority area, the impact of competition from the two sided market (recycled share of collection) and the density of households in the local authority area which can give incentives to share out estates/geographical regions within local authorities to reduce costs of collection.

Each of the structural variables can be indicative of competitive pressure inside local authority areas. We find that more competitors inside a local authority area do reduce revenue per kg per household. We also find evidence of monopolistic power that should be investigated further. The reallocation of households during a year from one permit holder to another inside a local authority area could be a sign of easy switching of households among permit holders, but if reallocation is coordinated by the permit holders to reduce costs then this could have the opposite effect on revenues per KG per household. We find indirect evidence that this is happening. Competition from recycled and organic waste should bring down revenues per kg per household, but we find that revenues are rising with the share of organic and recycling waste. Finally, having a high density of households in the local authority area should reduce collection costs and competition should pass on the benefits to the household in terms of reduced revenue per kg per household. The presence of monopolistic power inside catchments of local authority areas seems to prevent these benefits being passed on to the consumer. Our results are indicative of monopolistic tendencies. More evidence is required to prove without doubt that this is the case.

Annex: Variations over local authority areas in sample

LA Area	mean (Revenues)	sd (Revenues)
Carlow County	784.1614	1025.369
Cork City	9594.035	6576.043
Donegal County	944.116	656.9357
Dublin City	7281.061	10339.6
Dun Laoghaire-Rathdown	10766.73	11872.8
Fingal	5138.803	8229.955
Kerry County	4030.576	4195.305
Longford County	1567.304	1875.557
Mayo County	1461.604	371.0709
Monaghan County	1328.094	1381.037
South Dublin	4571.963	6284.77

LA Area	mean (1/N)	sd (1/N)
Carlow County	.3245614	.0873775
Cork City	.3571429	.0605228
Donegal County	.4	.0845154
Dublin City	.2018519	.0270854
Dun Laoghaire-Rathdown	.3846154	.0800641
Fingal	.25	0
Kerry County	.5833333	.1946247
Longford County	.6	.3007926
Mayo County	.2	0
Monaghan County	.3125	.0833333
South Dublin	.2115385	.0335888

LA Area	mean (Reallocation)	sd (Reallocation)
Carlow County	.0699187	.0529641
Cork City	.1020923	.0354605
Donegal County	.030709	.0252496
Dublin City	.1828734	.1033659
Dun Laoghaire-Rathdown	.1145661	.021126
Fingal	.1251596	.0360628
Kerry County	.1284086	.0215715
Longford County	.0008956	.0011685
Mayo County	.0710793	.0119898
Monaghan County	.0628886	.0219049
South Dublin	.2094256	.041904

LA Area	mean(Black Bin)	sd(Black Bin)s
Carlow County	.7439652	.0741232
Cork City	.6815069	.0903639
Donegal County	.7686514	.0651192
Dublin City	.5952764	.116618
Dun Laoghaire-Rathdown	.5574419	.1059596
Fingal	.5336465	.1138688
Kerry County	.7519625	.1396967
Longford County	.8197163	.1920437
Mayo County	.787845	.0481841
Monaghan County	.7323963	.1089267
South Dublin	.6261912	.0865944

LA Area	mean(LA_den)	sd(LA_den)
Carlow County	13.30461	4.478738
Cork City	970.1861	469.5292
Donegal County	1.245183	.6625504
Dublin City	943.3439	452.2324
Dun Laoghaire-Rathdown	445.6743	181.3487
Fingal	160.8257	74.09765
Kerry County	3.26822	1.524668
Longford County	11.06092	.5393829
Mayo County	3.663086	1.671039
Monaghan County	6.17187	4.163195
South Dublin	303.8959	124.2886



C. Public consultation responses

C.1 List of respondents

The CCPC received 42 responses which are listed below in alphabetical order. The full responses¹⁰⁶ are available on the CCPC website.

1. Agricultural Machinery
2. Bridie Nash
3. Carol Geary
4. Chartered Institute of Waste Management
5. Clean Ireland
6. Cork Mini Skips
7. County and City Management Association
8. Cré
9. Curland Ltd
10. Denis Murphy
11. Denise Marnane
12. DM Waste
13. Donal O'Sullivan
14. Donegal Waste
15. Enrich Environmental Ltd
16. Flor Crowley
17. Fonix Newsagents Ltd
18. Fred Hart
19. Geraldine Murphy
20. Ger Callanan
21. Greyhound Group
22. Indaver Ireland Ltd
23. Integrated Materials Solutions

¹⁰⁶ The responses provided to the CCPC public consultation are published. Supplementary information provided by respondents has not been published. In relation to responses from consumers, only the full name and county of residence have been published. Any other personal information has been redacted.



24. Irish Waste Management Association
25. Killarney Waste Disposal
26. Martin Doolan
27. Michael Ryan Lubricants & Co Ltd
28. Midland Environmental Services Ltd
29. Mulleady Group
30. Niamh Ní Liatháin
31. Norah Crean
32. Offaly County Council
33. O'Toole Composting
34. Patrick Logan & Sons Ltd
35. R.C. Flewit
36. RPS
37. SEHL (Panda/Greenstar)
38. Sharkey Waste Recycling Ltd
39. Sinead O'Neill
40. Stream BioEnergy Limited
41. The City Bin Co
42. Trish H. Hayes

C.2 Summary of consultation responses

Background and context

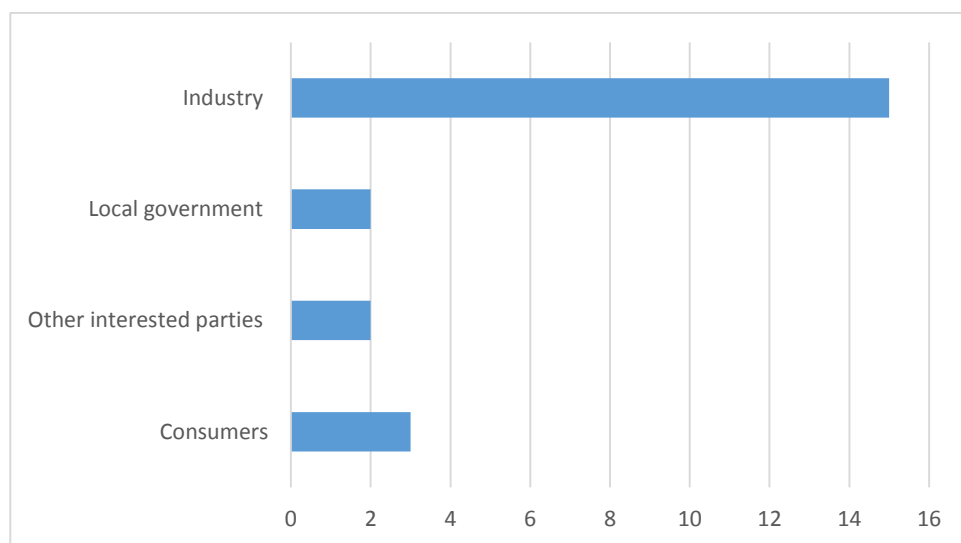
The CCPC completed a public consultation as part of the study of the household waste collection market in order to obtain the views of relevant stakeholders. Before issuing the consultation, the CCPC conducted a series of interviews and meetings with stakeholders in the household waste collection market including consumer representative groups, academics, local government, industry representatives, and individual household waste operators. During these meetings a number of relevant issues and themes emerged. The CCPC examined these and other issues in the consultation and the views of stakeholders were reflected in the final study.

The consultation themes covered competition, operational barriers to entry, market coverage, waiver of waste collection charges, landfill and incinerator capacity, and the regulatory environment.

Responses received

In total, 42 responses were received, where the CCPC could consider 22 responses as the other responses were identical or nearly identical to them. Figure 6 details the responses received by category which covered industry (operators, industry representative organisations, waste management companies), local government¹⁰⁷, other interested parties (consultants, business) and consumers.

Figure 6: Total consultation responses by category



Source: CCPC analysis of consultation data

Responses have not been weighted, and not all respondents answered all the consultation questions. In addition, the amount of detail in response to each of the consultation questions also varied between respondents.

The rest of this section presents a summary of the respondents' views on the main themes of the consultation. The views of respondents are broken down into the following four categories: industry views, local government views, interested third party views and consumer views.

¹⁰⁷ The County and City Management Association response also covered the regional Waste Management Offices and the local authority areas.



Industry views

There was not a consensus among industry representatives on all topics. However, in general, most respondents thought the household waste collection market was functioning adequately.

Competition

Nearly all industry respondents, who commented on the geographic market, disagreed that individual local authority areas represented distinct geographic markets for the collection of waste. Some pointed out that this may have seemed the case when local authority areas sold off client lists to specific operators, however, the market has moved on since then. There was not a consensus on what the relevant geographic market for waste collection was, with some indicating that markets were categorised as urban or rural, and others indicating there were no distinct geographic markets for waste collection. One respondent outlined that distance to the transfer/treatment/ disposal hub was what determined the geographic market (up to 100km).

Many industry respondents outlined that operators competed on more than just prices. However, one respondent outlined their belief that price was the most important consideration from a consumer perspective. The main non-price elements which respondents believed operators competed on were:

- Frequency of collection
- Communication
- Consistency of collection
- Extent of servicing offering i.e. number of bins, bin washing etc.

All industry respondents indicated that they thought the market was sufficiently competitive, with one operator describing it as “hyper competitive”. However, one respondent outlined that competition could be more limited in rural areas due to low population density and other disposal options. It was highlighted that the large number of operators in the market was a clear sign that the market was competitive (over 60 nationally). Some respondents indicated that there were areas where there may be a limited number of operators, however, competition from neighbouring operators was sufficient to keep prices and service standards competitive.

The lack of price increases, the expansion of servicing offerings and the innovation in the market were considered clear indications that the market was competitive. In addition, some respondents also suggested that household waste collection charges in Ireland were low when compared to European markets which was due to competition in the market.



One operator did highlight that where increased competition occurred it could sometimes lead to short term price reductions and price wars which can ultimately result in operators going out of business causing disruption to the service.

Operational barriers to entry

A majority of respondents indicated that barriers to entry were very low, with a number of respondents also suggesting that there were no barriers to entry at all. It was outlined that providing there was relevant access to a transfer/treatment facility (something which in the views of most industry respondents is the case) markets could be entered with just one or two waste collection vehicles. One operator acknowledged that entry by acquisition was the best form of market entry, but that it was very possible to organically grow a collection business.

Industry respondents did not think that new regulations around the weighing of waste and the provision of a dedicated organic bin to households had significantly increased barriers to entry in the market. It was indicated by one respondent that while the organic bin regulations had reduced the number of operators in the market, the environmental benefits of this regulation outweighed the negative impact of a reduction in operator numbers.

Many respondents also outlined that the key considerations a prospective entrant evaluated when entering a given market was the current price as well as service levels offered by the incumbent waste collector.

Market coverage

Many participants acknowledged that participation rates were not at 100% and a range of different reasons were given for this, as follows:

- Households unable or unwilling to pay for service
- Political environment, which negatively influenced householder participation
- Availing of civic amenity sites etc.
- Unable to access certain areas
- Illegal waste disposal (evidence was presented which indicated the percentage of unmanaged waste was very low).



A number of respondents suggested that an obligation on households to declare how they are disposing of their waste could increase participation rates and should be implemented. A number of respondents also expressed the view that kerbside collection should be favoured over other means of disposal. However, there was no consensus on this issue with one waste management company outlining that disposing of waste in bring centres and civic amenity sites should not be discouraged.

Waiver of collection charges

Many industry respondents disagreed that a waiver should be introduced for the collection of household waste in the State. Respondents raised concerns that the administration and selection criteria for waivers could cause difficulties. However, a number of respondents indicated that they would be open to engaging with the Government on the implementation of a waiver scheme.

One operator expressed their support for the introduction of a waiver for household waste collection charges providing the “polluter pays” principle could be maintained. Another operator agreed that a waiver should be introduced to ensure that households who cannot afford to avail of a service (of which, in their opinion, there are such households) will not be left out of the market.

Landfill and incinerator capacity

Industry responses in relation to capacity in the waste management market varied. Some respondents, mainly those directly involved in the household waste collection market, indicated that Ireland had adequate capacity to deal with both residual and non-residual waste streams, however a number of respondents indicated that future capacity shortages in residual waste management/disposal were likely. A respondent involved in the waste management sector indicated that there may be future capacity issues for residual, dry-mix recyclables, and organic waste.

A majority of industry respondents indicated that the market structure was not influencing waste disposal/treatment capacity in Ireland. A number of respondents from the waste management sector indicated that ensuring a long term supply of waste was an important factor in the development of future waste management capacity, however, the structure of the market did not impact this.

Where measures were suggested, a majority recommended that the regional waste management policy offices continue to forecast future waste generation as well as making additional capacity available, if and when, Ireland exceeded capacity. One operator indicated that it would help



investment decisions if the Environmental Protection Agency was given the resources to collate information on the annual returns of licenced facilities more frequently.

Regulatory environment

Regulations

In general, industry respondents felt that the current regulations were adequate and fit for purpose. However, the majority of respondents felt that the current regulations in the household waste collection market were not appropriate for apartment or communal dwellings as it is not possible to incentivise residents of these dwellings to stream their waste (due to their communal nature). A number of respondents suggested that responsibilities needed to be placed on management companies in order to ensure the regulations are effective.

Consumer protection

A majority of respondents felt that consumers were adequately protected in the current regulatory environment. Although one respondent indicated that the current regulatory system was confusing for consumers, and that it was often unclear who consumers should complain to.

Roll out of dedicated organic bin

Most respondents expressed their support for the continued rollout of a dedicated bin for organic waste. Some respondents suggested that poor take up by households was a problem and needed to be re-examined. One respondent suggested that operators who were not providing a three bin service had a cost advantage over “good” operators who were providing the service which was hindering the effectiveness of the policy.

Incentivised charging

Many respondents indicated that they expected that the recent prohibition of flat fees would increase recycling and reduce residual waste generation. However, two respondents involved in the waste management sector indicated that the policy would have a limited impact as: (a) consumers would find the incentivised charging structures confusing and so would not recognise the savings associated with reduction and streaming, and (b) banded systems were not effective.

Competition for the market

Nearly all industry respondents recommended that the current market structure be maintained. However, respondents provided a variety of reasons why they had come to this opinion, as follows:

- The current system is flexible, it allows operators to instantly respond to changes in the market - tendering on the other hand is inflexible as there is no incentive for operators to provide services which are not within the agreed terms of the contract
- Side-by-side competition fosters innovation as operators are encouraged to compete on more than just prices
- Significant investment has been made by household waste collectors and more is needed - in a scenario where tendering is introduced, investment in the interim period would be insufficient
- The costs of implementation would be significant as new operators who won tenders would need to invest in new waste collection vehicles, new bins etc. These costs would ultimately be passed on to consumers
- Many rural household collection markets are only viable as they have been merged with commercial collection markets. If household waste collection markets are tendered for then the efficiencies from this combination would be lost. In addition, the commercial markets will have to deal with a monopolist i.e. they will have no choice but to arrange collection with the tender winner
- The losers of the first tender will go out of business meaning there will be a limited number of operators for future tenders. This will increase prices, and it poses a threat to the provision of the service in the event a tender winner goes out of business
- Local authority areas should not be involved in the provision of the service. Many respondents cited that a reduction in costs and prices had been achieved since the exit of local authority area providers
- The decision to move to a system of competition for the market would be legally challenged by private operators which would be costly for the State
- Volume of unmanaged waste would increase
- Progress towards EU targets on waste reduction and streaming would be hindered.



Enforcement

Many respondents indicated that enforcement of the current regulations was at times inconsistent. In addition, some respondents suggested this created a gap in the market for operators who could provide services at lower costs by not complying with regulations. A number of respondents suggested that a more co-ordinated approach was needed to ensure consistency and one operator suggested the establishment of a single regulatory body which would have oversight on prices and other matters.

Local government views

The CCPC received two submissions from State agencies involved in the regulation of the household waste collection market in Ireland. One submission was from the County and City Management Association (CCMA), and the other was from Offaly County Council (OCC). The CCMA is the “representative voice” of the local government and management network, and the submission was prepared by the regional waste management policy offices who together account for the majority of the State agencies involved in the regulation of the household waste collection market in the State. The submission from OCC addressed specific issues which had been observed in the course of its regulation of the sector, and as such their response did not address all sections of the consultation.

Competition

Both respondents indicated that there were distinct geographic markets for the collection of household waste in Ireland. OCC stated there was an urban-rural divide for the collection of household waste, and the CCMA outlined the following four distinct geographic markets for the collection of household waste:

- High density e.g. Dublin city centre
- Medium/low density urban areas e.g. Limerick City/Galway
- Provincial towns
- Rural routes e.g. Mayo and Clare coastal routes, North West Donegal.

The CCMA outlined that operators mainly compete on price and flexibility of payment options, but that other factors were also considered important by consumers.

Both respondents indicated that competition seemed limited in certain areas. OCC outlined that operators had divided up the market in rural areas, thus removing competition. The CCMA highlighted

that the top 20 operators controlled 90% of the household waste collection market and noted that while there were alternative operators available, the price difference is generally marginal, thus discouraging switching.

Operational barriers to entry

The CCMA expressed their opinion that the household waste collection market was in a mature consolidation phase, and that operators seemed content to grow their market share through acquisition rather than organically expanding. The CCMA also stated that displacement of current operators could often only occur if the new entrant offered unviable/unsustainable prices.

The dominance of existing operators was identified by the CCMA as the most significant barrier to entry for a potential entrant, as established operators have certain efficiencies, and market specific knowledge which gives them an advantage over potential entrants.

Both respondents indicated that access to relevant transfer/treatment facilities could be acting as a barrier to entry in the market. Other possible barriers to entry mentioned were as follows:

- Sparsely populated rural areas
- Designated bag collection areas
- Areas with high concentration of previous waiver customers
- New regulations around weighing of waste and the provision of a three bin service.

Market coverage

Both respondents agreed that there were issues around participation rates in the household waste collection market in the State, with evidence being presented that €7 million was spent on collecting illegally dumped waste in 2017¹⁰⁸. The CCMA stated that the main reasons households did not avail of a kerbside collection service were:

- Collection routes deemed not viable by collectors
- No go areas
- Roads not accessible/ suitable for collection
- Householder use of pay-to-use civic amenity/landfill for disposal

¹⁰⁸ Local authority area survey conducted by CCMA.



- Illegal dumping/burning.

The CCMA outlined that the current market structure did not necessarily influence the participation rate.

Waiver of waste collection charges

Providing the “polluter pays” principle could be adhered to, the CCMA expressed support for the introduction of a national waiver scheme.

Landfill and incinerator capacity

Both respondents outlined that Ireland did not have adequate capacity to deal with forecasted residual waste generation and the CCMA also outlined that there were capacity issues for non-residual waste streams.

The CCMA stated that the current structure of the household waste collection market was not significantly impacting investment decisions in waste treatment infrastructure.

Regulatory environment

Consumer protection

In response to the question of whether consumers were adequately protected in the household waste collection market the CCMA said that “the current waste regulatory regime focuses primarily on the sustainable management of waste and the protection of the environment.” It was also acknowledged that although operators must have a customer charter in place, the sanctions for non-compliance were “not clear” and that the consumer had no direct point of contact in relation to complaints about waste collection operators.

Roll out of dedicated organic bin

The CCMA indicated that the roll out of a dedicated bin for organic waste was key to Ireland achieving its landfill and recycling targets. Although, acknowledging there has been a disruption to the roll out over the last two years due to regulatory consideration, however, the CCMA now believed that comprehensive enforcement and educational/awareness measures were in place to ensure its full roll out. However, OCC stated they were concerned that if they enforce the use of organic bins they could be held responsible for “aiding the spread of invasive species”.



Incentivised charging

It was stated that the recent prohibition on flat fees was unlikely to have a significant impact on waste streaming and reduction due to the prevalence of the banded charging structure which often means households can in effect pay a flat fee for waste collection.

Competition for the market

The CCMA outlined that there were issues with the current side-by-side market structure in relation to participation, service coverage, and a lack of truly incentivised waste charges. However, a move to competition for the market could hinder Ireland achieving EU targets around recycling and waste reduction. It was recommended that consideration should be given to a hybrid model which provided for targeted competition for the market, where required, in respect of low participation and the provision of a wider range of household waste services.

Third party views

The CCPC received a third party submission from RPS, which is an environmental consultancy that has been involved in the formation of Ireland's regional waste management plans and thus has extensive knowledge of the sector. The CCPC also received another third party submission, however, this is not discussed due to the limited detail provided in the submission.

Competition

RPS stated that there were distinct geographic markets for the collection of waste in Ireland. However, the size and location of these markets varied based on density of households.

RPS were of the view that waste collection services were fairly standardised, and that operators mainly competed on price.

Although competition varies significantly across the country, RPS stated that in general, competition in the household waste collection market was low. It was outlined that competition was particularly limited in low density rural markets, but that there were also issues with competition in some high density areas such as Dún Laoghaire–Rathdown.

Operational barriers to entry

RPS outlined that the main form of market entry was through acquisition. The market has been consolidating in recent years and in the opinion of RPS this is likely to continue. RPS outlined the following barriers to entry in the household waste collection market:

- Low population density areas are less attractive for potential entrants
- Concentrated markets
- Vertical integration of incumbent operators¹⁰⁹.

Market coverage

RPS outlined that market coverage has been an issue in Ireland for many years. Lack of access to a kerbside collection service has significant environmental implications.

RPS presented evidence that participation rates were much lower in rural, sparsely populated areas where collection costs are higher, indicating that there were many areas which were economically unviable under the current market structure. RPS outlined that the main reasons households did not avail of a service were (a) no service available in their area, (b) households choose to use pay-to-use civic amenity facilities, or landfills, and (c) households were illegally dumping/burning their waste.

Waiver of waste collection charges

RPS expressed support for the implementation of a national waiver scheme but only if combined with the introduction of competitive tendering.

Landfill and incinerator capacity

RPS stated that Ireland had enough residual and non-residual capacity to deal with Ireland's projected future waste generation provided that assumptions in relation to recycling rates were correct.

RPS also outlined that sufficient access to a long term volume of waste is an important consideration for investment decisions in waste management infrastructure. It was also made clear that the current market structure did not facilitate this.

¹⁰⁹ Potential entrants could be deterred if they need to use transfer/treatment facilities of incumbent operators.



Regulatory environment

Regulations

RPS outlined the implementation of regulations such as the roll out of a dedicated bin for organic waste, the introduction of incentivised charges, and the applicability of the regulations to apartments was hindered by the current market structure of side-by-side competition.

Consumer protection

RPS stated that the consumers were not adequately protected in the current regulatory environment.

Roll out of a dedicated bin for organic waste

RPS expressed their support for the full roll out of a dedicated bin for organic waste. However they outlined the following concern “there appears to be a reluctance by some service providers to push the service. In communication with a major waste collector on this issue we were informed that householders are “offered” the service (i.e. it is optional which the householder can select online) and they can refuse. In other words the operator doesn’t provide the bin mandatorily. This appears to contradict national policy and the recent statutory instrument. If this loophole exists it needs to be addressed as it is damaging to the future success of the service”.

Incentivised charging

It was stated that the recent prohibition on flat fees was unlikely to have a significant impact on waste streaming and reduction due to the prevalence of the banded charging structure which were in the opinion of RPS a flat fee by another name.

Competition for the market

Throughout the RPS submission references were made to the advantages of competition for the market or franchised bidding. We have summarised the key advantages, which in RPS’s opinion would arise from moving to a system of competition for the market, as follows:

- Efficiencies arising from single supplier provision of collection services mean that certain areas where it is not currently economic to provide a three-bin service may become economically viable



- The current system which is focused on price will hinder Ireland in achieving EU landfill and recycling targets
- Participation in the kerbside collection service would increase under a tendered system
- A national waiver scheme could be easily implemented, and
- Implementation of true incentivised charging structures would be possible in tendered system.

Recommendations

RPS outlined the following recommendations in relation to the regulatory environment in the household waste collection market in the State:

- Greater transparency of waste collection prices - information could be held by an independent consumer body such as the CCPC or the Commission for Regulation of Utilities
- Regional waste management offices to have a statutory remit to drive implementation of the regional waste management plans and policies (which are effectively national policies)
- Regional waste management offices to have the ability to direct waste to resolve emergency issues
- A levy on each kilogramme of residual waste produced by households which is ring fenced for the waste management offices to fund awareness, research and education on source separated kerbside collection systems
- An annual published list of non-compliant household waste operators and households who engage in illegal waste activities
- Appointment of a dedicated body (a national office led by a local authority or a regional waste office or government unit) to address the issue of household waste collection at apartments and to address the significant inadequacy of the current systems.

Consumer views

The CCPC commissioned Behaviour & Attitudes to conduct detailed consumer market research on the household waste collection market in the State, we also examined our own internal database of consumer complaints to ascertain what issues consumers encountered in the sector. In addition, the CCPC received a total of three original consultation responses from consumers in relation to household waste collection.



Two consumers expressed frustration with the current regulatory environment. Both of these respondents stated that they were served by monopolists and as a result had been unable to discipline operators for high prices, and incomplete service provision. Both respondents indicated that consumers were not adequately protected in the current environment and that consideration should be given to the establishment of a regulatory body to address consumer issues in the market.

One consumer expressed their reservations about any State interference in the private market for waste collection, as it was the respondent's belief that such interference would increase prices, reduce competition and reduce service levels.

SIXTH SCHEDULE

CUSTOMER CHARTER FOR HOUSEHOLD WASTE COLLECTION

1. INTRODUCTION (Insert *Name*) is committed to providing the highest standards in the provision of waste management services to their customers. We have a commitment to providing a service that seeks to incentivise waste prevention and to encourage the segregation of waste so that it can be managed in accordance with the waste hierarchy, whereby waste prevention, preparing for reuse, recycling and other recovery are preferred over the disposal of waste. This approach is in line with current national waste policy in the area — *A Resource Opportunity — Waste Management Policy in Ireland*. This document is designed to communicate how we intend to provide household waste collection services in accordance with these principles to the public in a clear and concise fashion.

2. CUSTOMER SERVICE STANDARDS

- (a) We will provide a regular and reliable collection service and process your waste in a professional and environmentally sound manner.
- (b) All service provision will be carried out in line with current local and national legislation and in line with sustainable waste management practices. Our National Waste Collection Permit Office (NWCPO) waste collection permit number is (Insert number) and the details of the permit can be viewed at www.nwcpo.ie.
- (c) We will provide you with timely, relevant and clear information regarding your collections, including temporary changes resulting from public holidays or adverse weather conditions.
- (d) We will consider any reasonable special requests that individual households may have.
- (e) We will explain clearly what our service rules are and the reasons for them.

- (f) We will respond to formal complaints we receive about our services in a timely and professional manner.
- (g) We will ensure that there are no direct impediments to you switching your service provider should you wish to do so.
- (h) We will design our service and carry out collections in a way that minimises litter and odour nuisance.
- (i) We will offer a “2 Bin” or “3 Bin” service (to facilitate the segregation of residual waste, recyclables and where appropriate, food/bio waste) in line with the relevant regulations in relation to food/bio waste [the European Union (Household Food Waste and Bio-waste) Regulations 2015]. The frequency of collection will be as follows:
 - Residual Waste Bin — in line with the European Union (Household Food Waste and Bio-waste) Regulations 2015.
 - Recyclable Waste Bin — at least every fortnight.
 - Food & Bio Waste Bin — in line with the European Union (Household Food Waste and Bio-waste) Regulations 2015.

3. COMMUNICATION WITH CUSTOMERS

- (a) We will explain clearly what services you can expect to receive and will provide details of the collection services we offer on a county/city basis to the National Waste Collection Permit Office for publishing on their website.
- (b) We will provide you with clear and concise billing which will allow you to understand all elements of the costs involved in providing your waste services.
- (c) We will inform all customers availing of a domestic waste collection service at least 10 days in advance of any predictable alternative arrangements made for collection in relation to public holidays etc., or any proposal to vary the level of collection.
- (d) We will keep you informed of changes in our service that are designed to improve our service offering.
- (e) At the time of initial service provision, each customer will be provided with details of their service providers; full name and address, contact details (website where available, phone number, email, postal address), a clear breakdown of pricing policy for provision of service, process for accessing account statement and balances, procedure for receipt of payments, process for dispute resolution, procedure for customers who have fallen into arrears with their payments, where applicable, service provision frequency and details and the procedure for cancellation of service provision, including refund of charges

where applicable. You will also be provided with details of the period of validity for the offer provided and advised of a cooling off period, should you wish to change your mind (usually any time prior to delivery of bins but at least 7 days from time of contract signing).

- (f) In the case of e-Commerce contracts with customers, and in line with reducing paper usage, all communication and documents will be sent by email, unless otherwise requested. In the interests of the environment and reducing costs we are committed to increasing communication by this method.
- (g) We will alert you at least 30 days in advance of the expiry of your contract.
- (h) We will produce a version of this Charter which has been approved by the National Adult Literacy Agency

4. Householder Responsibilities

- (a) In line with national policy, prevent, reuse and recycle waste as much as possible. Refer to national and regional campaigns that seek to help reduce waste production. Present your waste materials, properly segregated and placed in their respective bins / receptacles. Please refer to our *Waste Segregation and Presentation Guidelines* (see section 7 below) which are available on our web site or which are available to send to you by post, if requested.
- (b) Segregate your waste appropriately. Please note the procedure in place should the incorrect waste be placed in a bin (e.g. food waste placed in the recycle bin):

(Procedure for dealing with contamination of a bin through waste being deposited in the incorrect bin to be inserted by collector)

- (c) In the event that you have difficulty paying your outstanding bill, please contact us directly as soon as possible as we have a procedure to agree an individual payment plan which deals with how we will manage customers who have difficulty paying their bill.
- (d) Contact us, as your waste management service supplier, if you have any queries on how best to manage any of your waste materials. We have the expertise to provide the appropriate service or advice on how to best resolve the issue

5. PRICING, CHARGING MECHANISM AND ACCESS TO ACCOUNT INFORMATION

- (a) The range of service and costs for service provision will be clearly communicated to each customer.

- (b) New Customers will receive information on charging and pricing structures at the time of sign up i.e. whether over the phone, via website sign-up or via completion of hard copy application form.
- (c) Information, including a copy of Terms and Conditions of Business will be provided to Customers as part of new Customer Welcome Packs and will be available on the company's website and/or www.nwcpo.ie.
- (d) Any changes to the Terms and Conditions of the business will be communicated to customers in a timely manner. Payment of invoices following such notifications shall be taken as acceptance of the updated Terms.
- (e) Customers will be entitled to easy access to their account information including statements / balances

6. COMPLAINTS PROCEDURE/DISPUTE RESOLUTION

- (a) You are entitled to a fair and reasonable hearing when you have a genuine complaint or dispute and the company commits to resolving your issues as quickly as is reasonably possible. Please find our contact details for complaints:

(Collector to insert contact details)

- (b) We will respond to formal complaints that we receive about our services in a timely and professional manner. In the case of written complaints, within 10 working days.
- (c) Complaints shall be logged on the individual customer account with a tracking facility to ensure the complaint has been resolved and the customer notified of updates or the course of action taken to resolve the issue.
- (d) Billing disputes are handled on a case by case basis and recorded. We will liaise with you directly to resolve the matter.
- (e) Dispute resolution including withdrawal of service will be in line with the company policy available on the company website or which is sent out by post on request. This will be a fair and equitable process in line with good consumer policies.

7. EDUCATION AND RAISING AWARENESS

- (a) We shall implement an education and awareness programme in relation to waste management for householders that we service. This will be available via promotional literature that we provide directly to you and via our website or through the website of the National Waste Collection Permit Office.

- (b) Information packs shall be available to all customers clearly indicating waste types appropriate to each bin and how to present material for recycling.
- (c) We shall work with other national bodies in promoting waste prevention, reduction and recycling e.g. EPA / Repak etc.
- (d) We will provide Waste Segregation and Presentation Guidelines to customers, or at a minimum to the National Waste Collection Permit Office for publishing on their website, which clearly explain which materials are to be placed in which bin and collect at a minimum the recycling materials set out below and as prescribed in the sixth schedule of the Waste Collection Permit Regulations. We will explain to you what happens to materials collected in the residual, recycle and food waste bins.

Paper

Newspapers
Magazines
Junk mail
Envelopes
Paper
Phone books
Catalogues
Tissue boxes
Sugar bags
Calendars
Dairies
Letters
Computer paper
Used Beverage and Juice cartons
Milk cartons
Egg Boxes
Holiday brochures
Paper Potato bags

Cardboard

Food boxes
Packaging boxes
Cereal boxes
Kitchen Towel tubes

Aluminium cans

Drink cans

Plastic Bottles (PET 1)

Mineral Bottles
Water Bottles
Mouthwash bottles
Salad dressing bottles

Plastic Bottles (HDPE2)

Milk Bottles
Juice Bottles
Cosmetic bottles
Shampoo bottles
Household cleaning bottles
Laundry detergent bottles
Window Cleaning Bottles
Bath room bottles

Plastic packaging (PP)

Yogurt containers
Margarine tubs
Rigid food packaging- (except black)
Liquid Soap Containers
Fruit containers

Steel cans
Pet food cans
Food cans
Biscuit tins
Soup tins

(Optional — In addition, we will accept the following items in the recycling bin:)

8. TERMINATION OF SERVICE / REFUNDS / CHANGING SERVICE PROVIDERS

- (a) Should you wish to terminate your service provision, please advise us by email or in writing or by phoning giving (*Number of days to be inserted*) days' notice. We will remove our bins by arrangement with you and any balance owing on your account, after a Cancellation Charge (if applicable) is deducted, will be refunded to you within 30 days of receipt of termination notice.
- (b) We will ensure that there are no direct impediments to you switching your service provider

9. CHANGING EQUIPMENT AND OWNERSHIP OF BINS

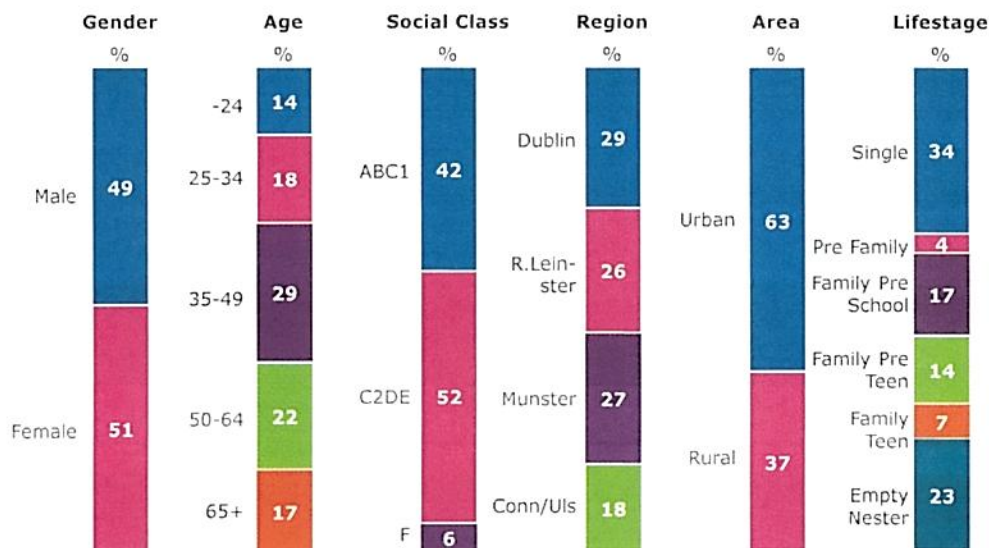
- (a) At time of initial service provision, by agreement, each customer will be supplied with the appropriate bins / receptacles sized to service their specific needs.
- (b) In the case of changing equipment / ceasing service / changing service provider we commit to organising to arrange the collection of your old bins within a two week period of the ceasing of the service.
- (c) This Charter does not affect your statutory rights in any way and provides a simple interpretation of our commitment to you, our customer, and what we expect in return, to help ensure that you are provided with the best service level possible.



Introduction

- This project on attitudes to and experience of domestic waste collection services was undertaken for the Competition and Consumer Protection Commission (CCPC) by Behaviour & Attitudes (B&A).
- The project looked at current domestic waste collection routines, exploring how households currently pay, and whether they might prefer in an alternative payment structure. The study also looked at aspects such as the extent of choice and indeed whether households would prefer to be served by a single operator (who tendered for all the local business) or alternatively to be offered a choice of two different providers.
- Annual payment amounts were also queried, enabling the determination of whether higher or lower charges are paid in different parts of the country.
- The research was included on Behaviour & Attitudes January No.3 Barometer survey with fieldwork between the 23rd January and 1st February 2018.
- The survey interviewed a nationally representative sample of 1,000 adults aged 16 and over with fieldwork undertaken across 63 randomly selected sampling points nationwide. Interviewer-administered demographic quotas in respect of gender, age and social class ensured that when all of the interviews are cumulated together, the data mirrors the national population structure based on the latest census of population.
- Results from the survey can be deemed to be accurate with a margin of error of 3.2%.

Profile of Sample



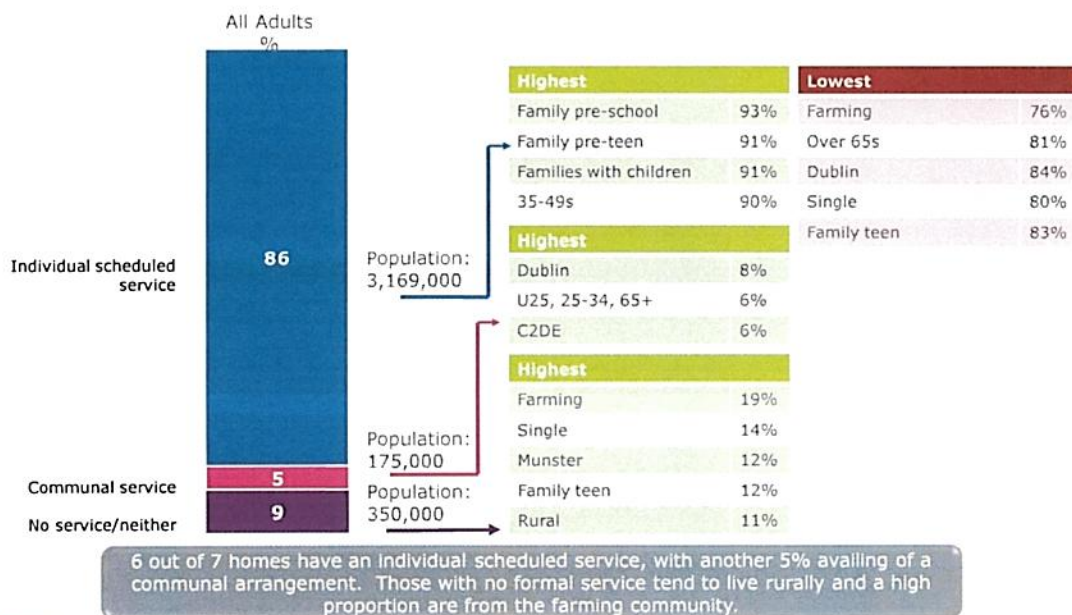
Quotas were placed on the sample to ensure it is nationally representative of all Irish adults aged 16+.

Key Highlights

- 6 out of 7 homes have an individual scheduled waste collection service, with another 5% availing of a communal service. 1 in 10 claim to not have a waste collection service (mainly rural and farming households). 3 in 5 homes have a dedicated organic waste bin.
- 3 out of 4 households, with an individual scheduled waste collection service, pay monthly for waste collection service. A smaller proportion (1 in 4) pay annually - On average, households pay €278 per annum on waste collection services.
 - Those with a pay-by-lift or combined pricing structure (pay by lift / pay by weight) tend to pay lower amounts on waste collection. Higher payers are more likely to be purely pay-by-weight.
- With regards to waste collection systems, 2 in 3 prefer the option of multiple operators as they assume it will be cheaper and gives them choice of provider. Those with presumably more modest waste needs (single, empty nesters) gravitate towards single operator however, as they feel there will be less noise and fewer bins on the street.
- Just 15%, of those with a choice of waste collection provider, have ever switched, with switching much more likely among 25-49 year olds, middle class and urban households.
 - U25s, Dubliners, working class and men are more likely to switch for a price advantage. Middle class, middle aged, rural and Leinster more likely to have gone for better service. Inertia is the key obstacle.
- Most who have switched feel that the process was relatively straightforward and comparison of waste collection services was relatively easy – especially among those living in Munster. A more mixed perspective in RoL and Connacht/Ulster.

Current waste collection service

Base: All adults - 1,000/3,694,000

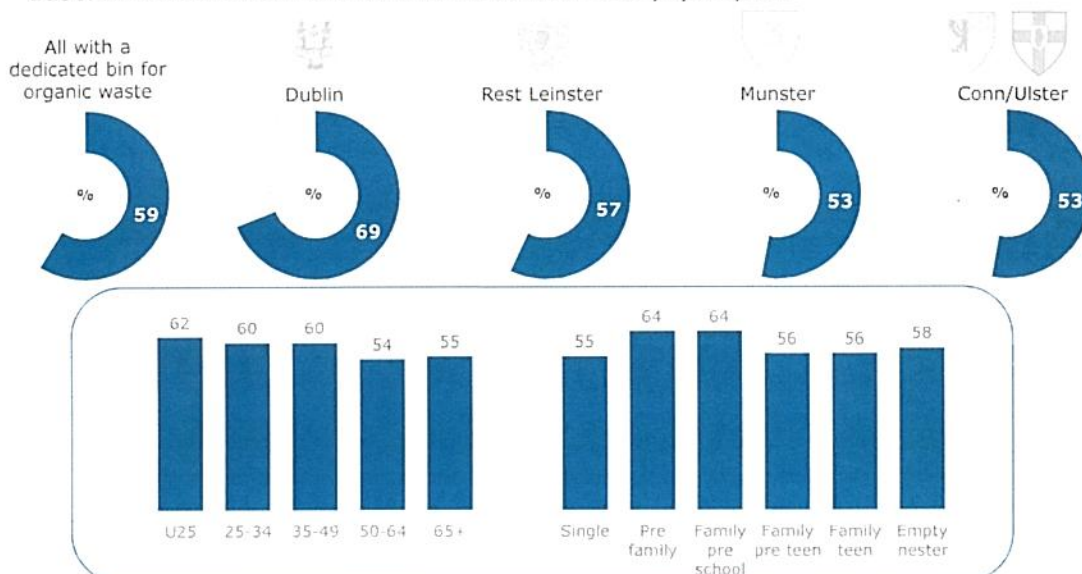


Q.1a As at Jan 1 2018 did you have an individual pre-scheduled domestic waste collection service (not a communal service, e.g. as found in an apartment complex)?

5

Dedicated organic waste bin

Base: All with an individual scheduled service - 865/3,169,000



Uptake of dedicated organic waste bin is better among the younger age category. Dublin generally much stronger overall, with just over half in Munster or Conn/Ulster having an organic bin.



Q.1d Can you currently avail of a dedicated bin for organic waste?

6

Reasons for not having an individual or communal waste service

Base: No individual or communal bin service – 135/525,000



*Caution small base

A majority with no service in Dublin live in an apartment, whereas most without service in other regions say that they have nothing available to them. High proportion in Connacht/Ulster prefer an alternative means of disposal.

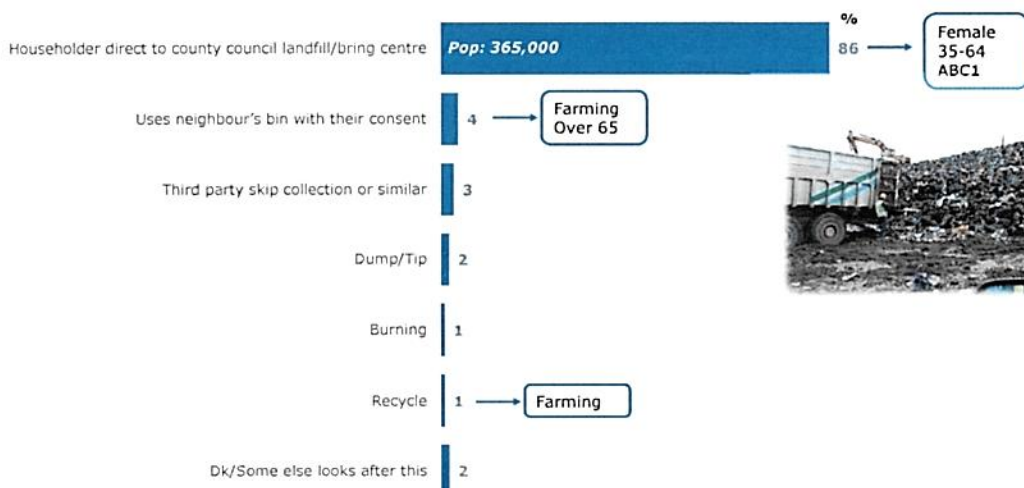


Q2a What is the reason for you not having a waste collection service provider?

7

Normal means of waste disposal for those without a waste service

Base: No individual or communal bin service & non apartment dwellers - 107/424,000



6 out of 7 without service, or 365,000 householders, indicate that they take their refuse to a council landfill or bring centre.

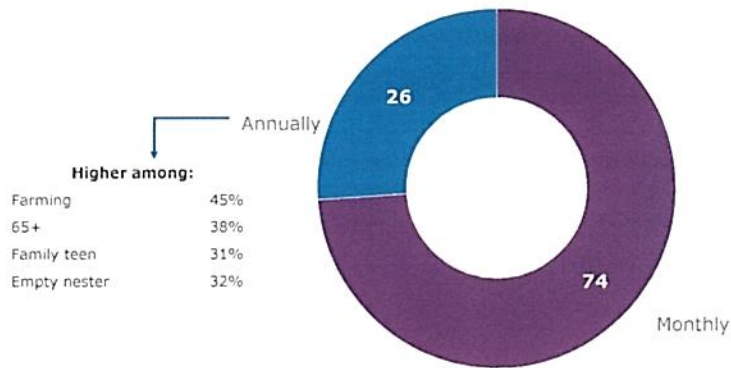


Q2b What is the means of your waste disposal?

8

Current frequency of waste collection payment

Base: All with individual scheduled service – 865/3,169,000



3 out of 4 pay monthly with a smaller proportion indicating they have an annual charge. Annual charging seems more common rurally and among older adults.

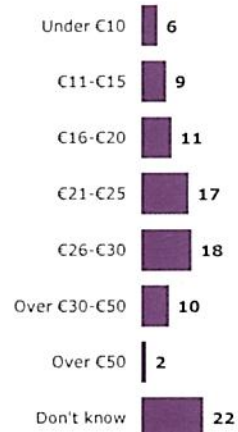


Q.8 Do you pay for your waste collection by month or by year?

9

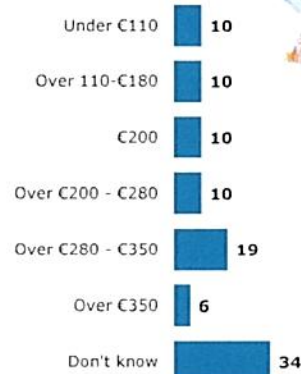
Current cost of waste collection service

Monthly (Pay Monthly: 632)



Average monthly cost: €30.07
Average (excl €50+) monthly cost: €23.17

Annual (Pay Yearly: 233)



Average annual cost: €233

A typical home is paying above €230 - €280 per annum.

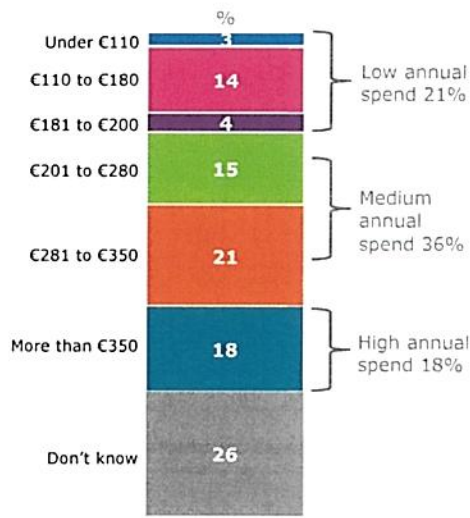


Q.8a What is your household's average household waste collection cost per month?
Q.8b What is your household's average household waste collection cost per year?

10

Annual estimated waste collection charge

Base: All monthly & annual payees – 865/3,169,000



Average €278 per year

Average	€
Dublin	274
R.Leinster	298
Munster	305
Conn/Ulster	286
Single	274
Pre Family	234
Family Pre School	286
Family Pre Teen	280
Family Teen	283
Empty Nester	279
Ever Switched	263
Never Switched	280
Pay Monthly	292
Pay Yearly	233

*Outliers over €600 per annum have been removed

On average, households pay €278 per year on waste collection services. Dubliners, presumably pay less more to do with family size. Past switchers and yearly payers also claim lower annual cost.

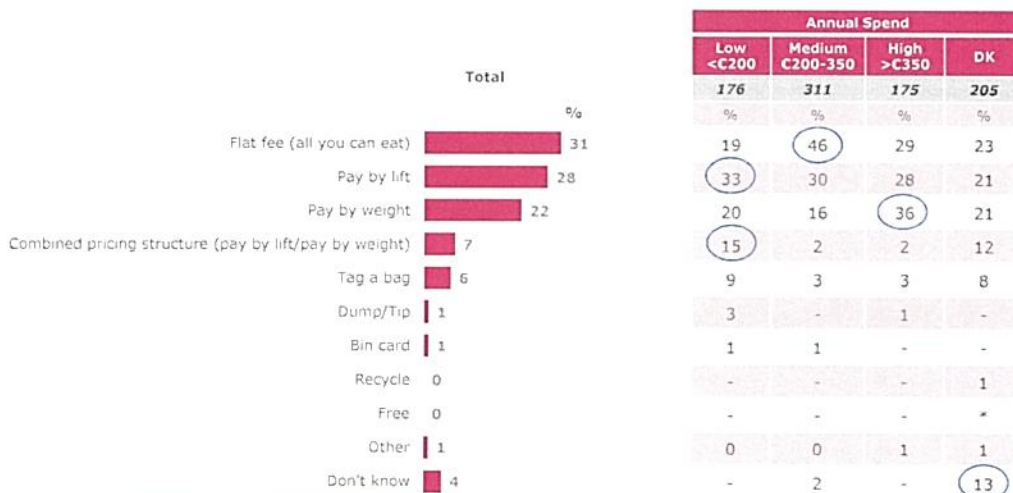


Q.8b What is your household's average household waste collection cost per year?

11

Pricing structure of current waste collection service

Base: All with individual scheduled service – 865/3,169,000



Those with a pay-by-lift or combined pricing structure tend to pay lower amounts. Higher payers are more likely to be purely pay-by-weight.



Q.1c What is the pricing structure of your waste collection service?

12

Whether option of more than one provider

Base: All with individual scheduled service – 865/3,169,000



A sizeable number in Dublin indicate that they don't have a choice of provider. Excluding those that don't know, the proportion suggesting they have no choice is as high as one in four.

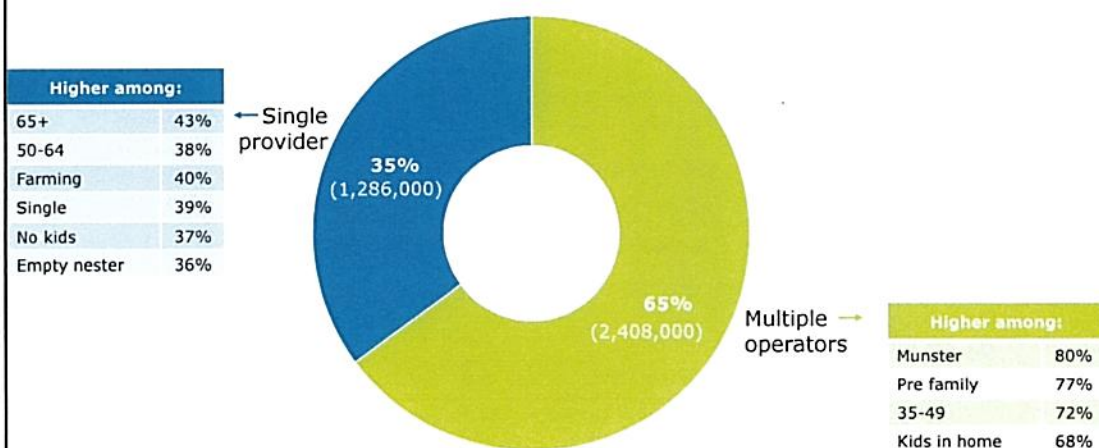


Q3 Do you have the option of more than one provider?

13

Preferred waste collection system

Base: All Adults – 1,000/3,694,000



Older adults and those with presumably more modest waste needs (single, empty nester) gravitate a little towards a single operator system, but the vast majority of most groups prefer the idea of choice (multiple operators).

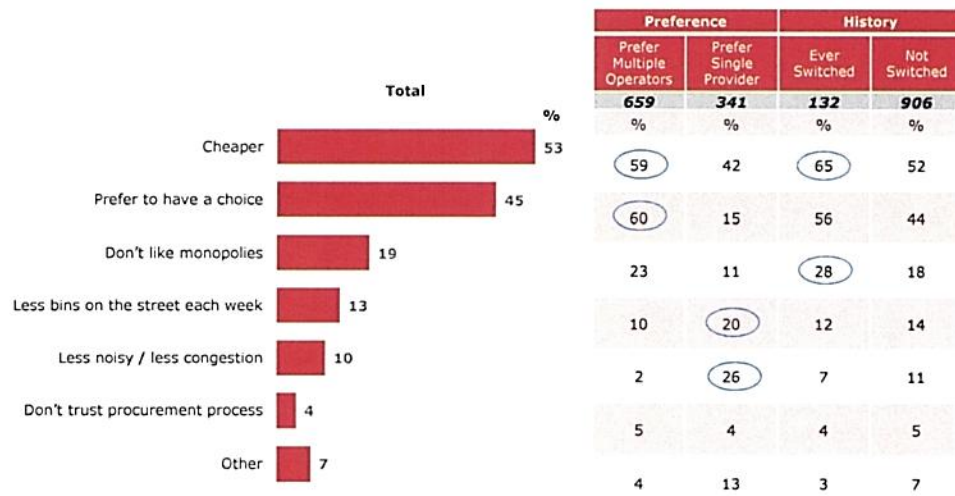


Q.7a What is your preferred Waste Collection System?

14

Basis of preference for waste collection system

Base: All Adults – 1,000/3,694,000



Those preferring multiple operators assume it is cheaper and gives them a choice. Those opting for the alternative arrangement (single operator) suggest there will be less noise and fewer bins on the street.

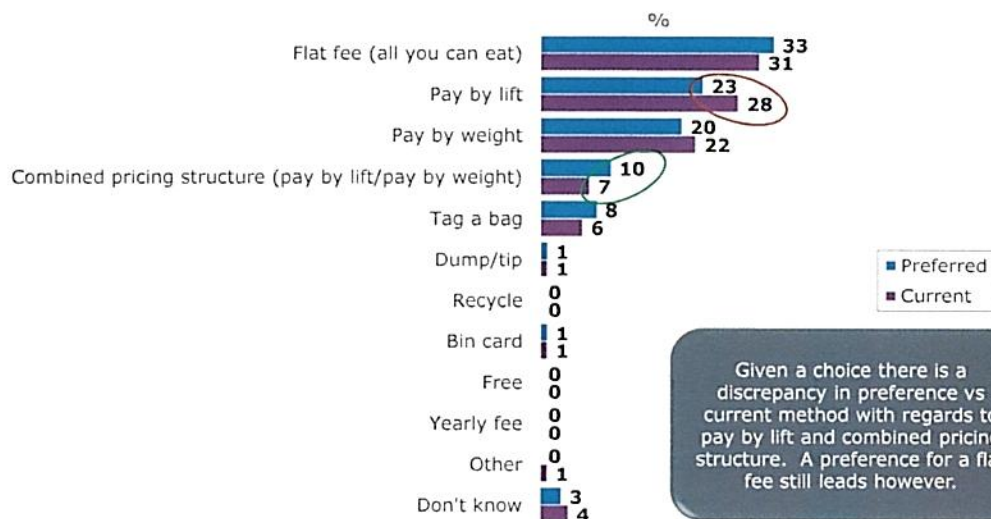


Q.7b Please give the reason(s) for your preferred system?

15

Preferred and Current Methods of waste payment

Base: All with individual scheduled service – 865/3,169,000



Given a choice there is a discrepancy in preference vs current method with regards to pay by lift and combined pricing structure. A preference for a flat fee still leads however.

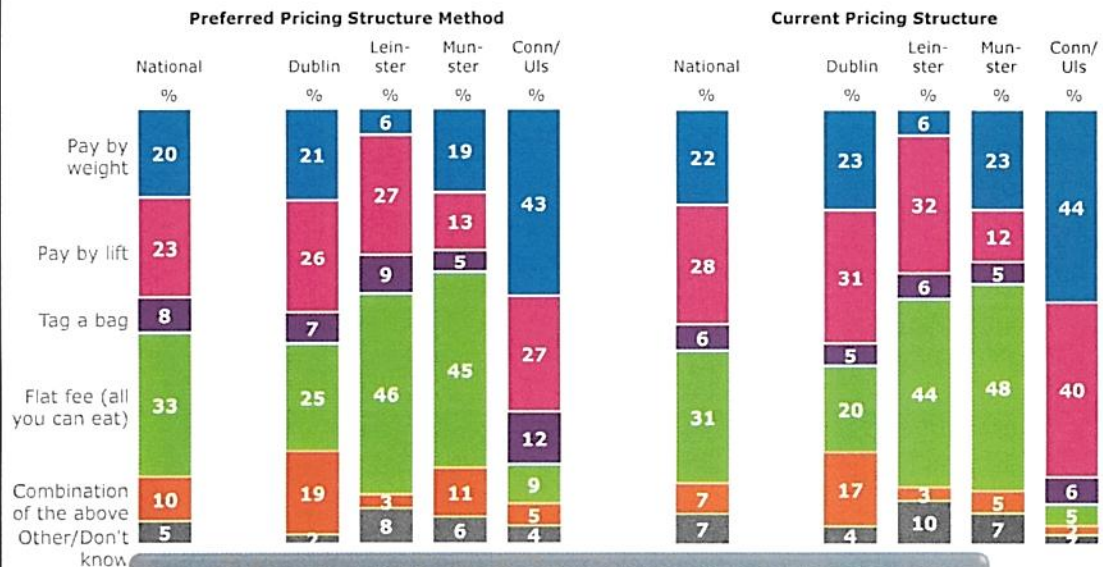


Q.1b What would be your preferred pricing method for waste collection services?
Q.1c What is the pricing structure of your waste collection service?

16

Pricing Structure: Regional Comparisons

Base: All with individual scheduled service – 865/3,169,000



Pay by lift is sizeable in Dublin, Leinster and Conn/Ulster. Given a choice, there is more interest in flat fee (all you can eat).

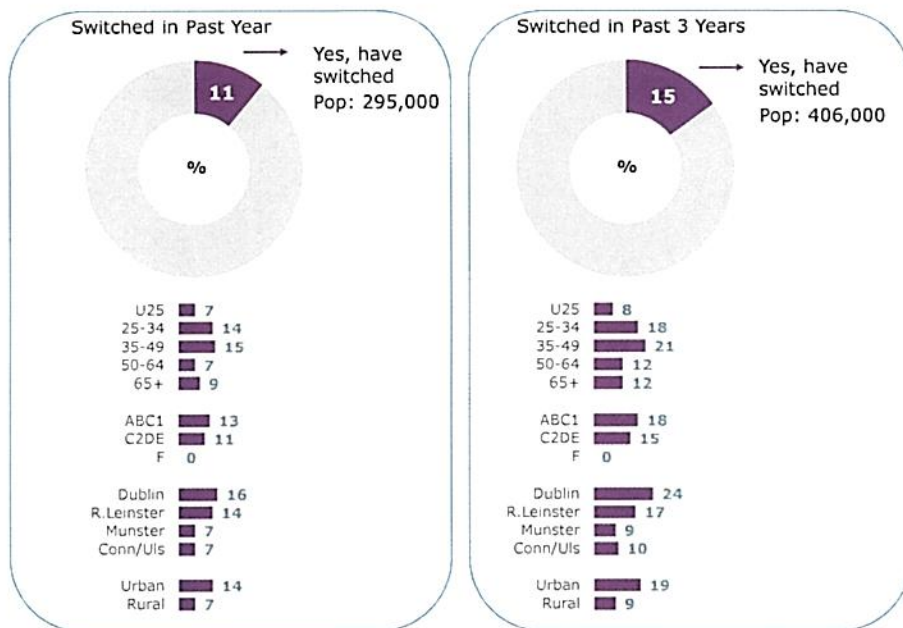


Q.1b What would be your preferred pricing method for waste collection services?
Q.1c What is the pricing structure of your waste collection service?

17

Incidence of actively switching waste provider

Base: All with a choice/uncertain if have a choice of waste provider – 724/2,660,000



Switching much more likely among 25-49 year olds, middle class, and urban. One in four Dubliners have switched at some stage over the past 3 years.

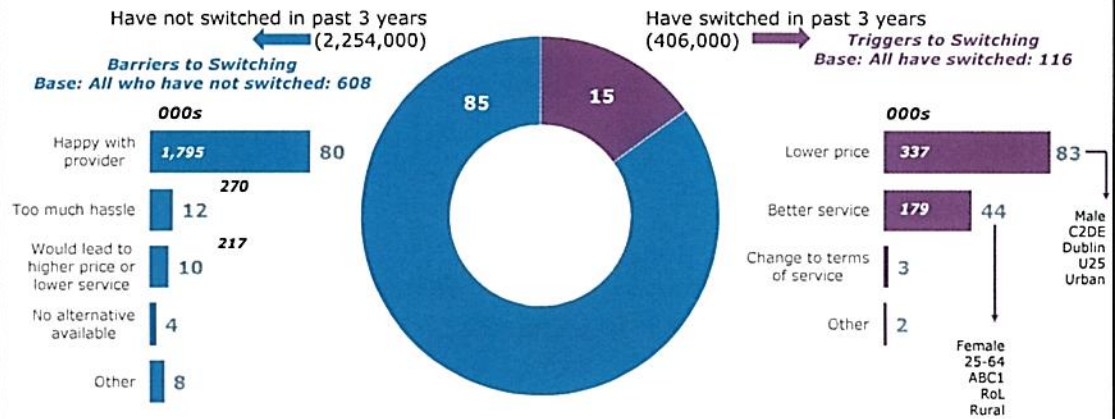


Q.4i Have you actively switched provider over the past 12 months?
Q.4ii Have you actively switched provider over the past 3 years?

18

Triggers & Barriers to Switching waste provider

Base: All with a choice/uncertain if have a choice of waste provider – 724/2,660,000



U25s, Dubliners, working class and men more likely to switch for a price advantage. Middle class, middle aged, rural, Leinster and women more likely to have gone for better service. Inertia is the key obstacle.

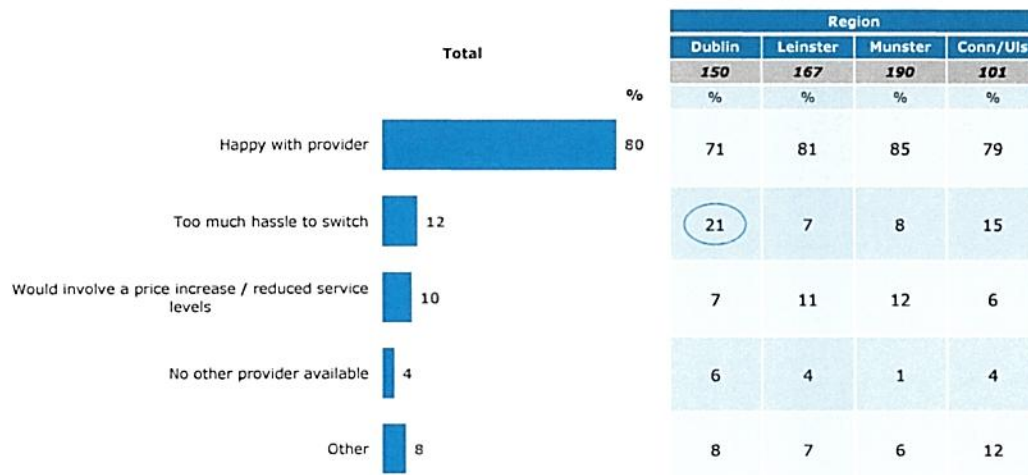


Q.4i Have you actively switched provider over the past 12 months?
Q.4ii Have you actively switched provider over the past 3 years?
Q.5 What are your reason(s) for switching?

19

Reasons for not switching x Region

Base: All who have never switched – 608/2,254,000



7 in 10 say they don't have a reason to switch (happy with provider). Hassle emerges as a key demotivator in Dublin (21%).



Q.5b What are your reason(s) for not switching?

20

Reasons for not switching x Demographics

Base: All who have never switched – 608/2,254,000

	Total	Gender		Age					Social Class			Lifestage					
		Male	Female	-24	25-34	35-49	50-64	65+	ABC1	C2DE	F	Single	Pre Family	Family Pre School	Family Pre Teen	Family Teen	Empty Nester
Base:	608	303	305	74	93	170	162	109	258	327	23	189	24	106	72	45	167
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Happy with provider	80	76	83	66	70	84	85	88	82	79	72	76	83	76	87	70	86
Too much hassle to switch	12	10	14	6	13	13	15	11	10	14	10	9	14	17	13	12	12
Would involve a price increase / reduced service levels	10	14	5	8	14	11	7	8	11	8	13	10	13	9	6	20	6
No other provider available	4	4	3	8	2	3	5	1	4	4	-	3	-	8	2	2	4
Other	8	9	7	23	13	2	4	4	8	7	13	16	7	2	2	15	3

The older age cohort (65+) and empty nesters most likely to be happy with their current provider. Those with young kids are more likely to stick with current provider due to perceived hassle of switching or because no other provider is available.



21

Perceived ease of switching waste provider

Base: All who have ever switched provider – 116/406,000



Most who have switched feel that the process was relatively straightforward, especially among those living in Munster. A more mixed perspective in RoL and Connacht/Ulster.

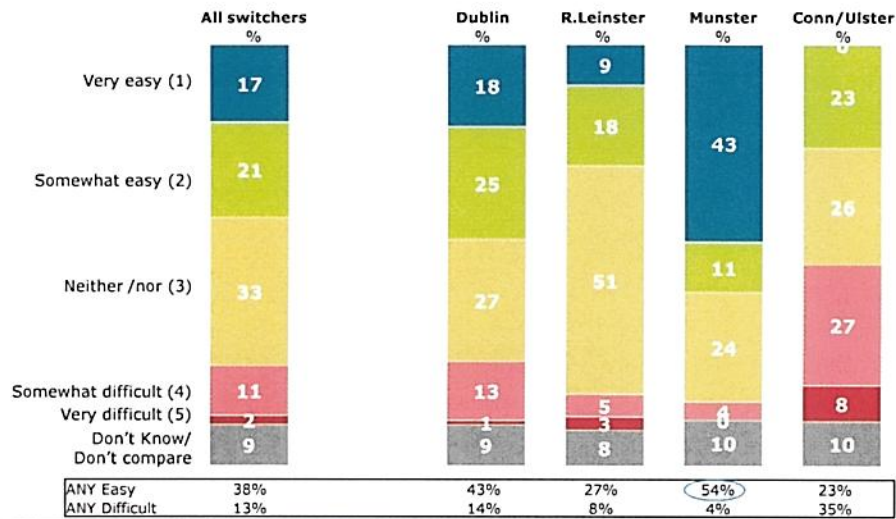


Q.6 In general when thinking about the waste provider switching process, how would you describe it?

22

Ease of comparing waste collection services across operators

Base: All switchers – 132/461,000



2 in 5 switchers found comparing services to be easy while more than 1 in 10 found it difficult. Those living in Munster compared suppliers at most ease, while RoL and Conn/Ulster switchers had most difficulty.



Q.9 How easy do you find comparing waste collection services across operators?

23

Summary & Conclusions

- 6 out of 7 homes (86%) indicate that they have an individual scheduled waste collection service. This is more common in urban areas and among those in the core, 'family' lifestage.
- Roughly 5% have a communal service, equating with roughly 175,000 adults. These tend to be from Dublin more particularly, from working class areas, at either end of the age spectrum.
- Those without any waste collection service tend to be from rural areas and from farming backgrounds.
- There is a broad division in the type of payment regime in operation: 31% avail of a flat fee, 28% pay-by-lift and 22% pay-by-weight. Additionally, 7% operate a combination of the above, with 6% using a bag tagging system. Interestingly lower payers are slightly more likely to pay-by-lift or to use a combination of methods, whereas higher payers over index in the pay-by-weight group.
- Given a choice, fewer would pay-by-lift or by-weight, with a slight preference towards a combined system, or alternatively, bag tagging. Nonetheless the greatest number, 31%, continue to favour a flat fee system.
- There are notable differences by region, with very sizeable proportions in Connacht/Ulster (40%) in Dublin (31%) and in Leinster (32%) indicating that they pay-by-lift. Given a choice, the proportions opting for this system tends to reduce, with a growth in preference of bag tagging, or some form of flat fee based system. Nonetheless it is noteworthy that most people tend to nominate the payment system which they currently utilise: this presumably relates to unfamiliarity with the workings or value of the alternatives.



24

Summary & Conclusions

- About 6 in 10 with an existing bin collection service have an organic waste or 'brown bin' service. This is much more likely in Dublin (69%) or indeed the rest of Leinster (57%). Just over half in the other two regions currently have an organic waste collection service. This seems somewhat more common in the family lifestage and under the age 50 particularly.
- Among those homes that don't have a waste collection service, slightly more than half or 285,000 adults indicate that there is no provider available to them. This is the largest reason outside of the Greater Dublin area, indicated by more than 3 in 5 in each of these regions. In Dublin, just over a third indicate that no service is available to them. The largest reason in Dublin, suggested by almost half (47%) is that they live in an apartment and that waste is centrally collected.
- Sizeable numbers in Connacht/Ulster and Munster indicate that they prefer alternative means of disposal: they have opted out of a centralised or routine waste service.
- For those who don't have an existing service, about 6 out of 7 indicate that they tend to bring their waste direct to the County Council landfill or bring centre. A small number of older adults in the farming community indicate that they use a neighbour's bin with their consent.
- 71% say that they have the option of more than one waste collection provider and interestingly this is more prevalent in Leinster or Munster than it is in Dublin or Connacht/Ulster. Excluding those who don't know, roughly a quarter in Dublin suggest that they don't have a choice of more than one provider.



25

Summary & Conclusions

- 11% say that they have switched waste provider in the past year and up to 15% over the past three years. Those who have switched are much more likely to be in Dublin or the Leinster region, and switching is more common in middle class communities and between the ages of 25 and 50. As such the appetite for switching mirrors that seen in other switching related studies undertaken for the CCPC.
- Among those who have opted to switch, the vast majority say that they did so for a better price. 6 out of 7 switchers nominated this reason, with the only other tangible category (at half this level, 44%) being for better service.
- Clearly the vast majority haven't switched, with most indicating that they are happy with the current provider (4 out of 5) or that they see the process as being too much hassle or potentially leading to higher cost or lower service. Ultimately there is clear evidence of inertia. The perceived hassle of switching is particularly noteworthy in Dublin.
- When asked about the process of comparing or evaluating different providers, a quarter of switchers suggested that it was difficult, while 44% said they felt it was easy. The remainder, about 3 in 10, described it as neither easy nor difficult.
- When offered the option of choosing between multiple operators providing a service within the same area, or the alternative of a single provider tendering for and securing the entirety of the waste collection contract for a specific period of time, a clear majority indicate that they would prefer the multiple operator scenario.



26

Summary & Conclusions

- 65% preferred this and it is much more common middle class and in the mid-life stages. As such, those who prefer multiple operators mirror the profile of those who seem more likely to switch. Of the roughly one third who would prefer a single provider, it is not surprising that the majority of these tend to be older and from empty nester backgrounds, the farming community. As such, they are indicating a preference for a system without choice, as many may find themselves deterred by the prospect.
- Of those who prefer multiple providers, the vast majority suggest that they either prefer to have a choice, or simply that they assume it should be cheaper. Focussing on those who would prefer a single operator within an area, there are higher proportions who feel that there will be less noise and congestion or indeed fewer bins on the street week-round. Nonetheless the main reason nominated by those who prefer a single provider is that they equally would believe it is likely to be cheaper.
- Three quarters of all adults indicate that they pay for their bin service on a month-by-month basis whereas 1 in 4 make an annual payment. Annual payments are a lot more common in the farming community and among older adults.
- The average payment made by a home that pays monthly is in the region of €30, although where larger amounts are stripped out (i.e. amounts over €50), this average falls to about €23 a month. Nonetheless as many as 1 in 4 are unsure as to what they pay per month.



27

Summary & Conclusions

- Turning to waste collection amounts paid annually, a claimed average of €233 was established, although a third who pay annually were unable to indicate what they themselves are paying.
- Combining the monthly and annual amounts, we see a national average amount per home of roughly €278 per annum. This would equate with a monthly average of roughly €23.
- Lower annual payments are apparent in the Greater Dublin area, whereas average levels in Munster are indicated at about €80 a year higher. However this may relate to household composition or family lifestage: lower annual amounts are paid by those in single or pre family lifestages.
- Not surprisingly, among switchers the average amount paid per year is lower by about €17 than among those who have never switched. This may illustrate the potential benefit of switching perhaps, but may merely reflect that switchers are a little more likely to be at an earlier lifestage (with less waste) or to be living in a region where switching is more commonplace. It is impossible to conclude whether lower bills are a result of switching, or indeed may merely be a geographic or lifestage factor.
- Among those who have ever switched waste provider, about 40% indicate that the process of comparing providers was easy, whereas 15% suggest it was difficult. Nonetheless as many as 45% indicated that it was neither easy nor difficult, supporting the notion that it is something about which most remain uncertain.



28

