

Altering the Structure of Household Waste Collection Markets

A Submission to the Department of the Environment, Community and Local Government

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1. SUMMARY

- 1.1 The Department of the Environment, Community and Local Government's (DoECLG) consultation is focused on the merits of introducing competitive tendering for the collection of household waste (also known as competition "for" the market or "franchise bidding") to replace the current system of side-by-side competition (competition "in" the market). The rationale for this policy change is the existence of economies of density in household waste collection services and concerns about variations in the quality of services and the achievement of environmental objectives.
- 1.2 Environmental policy and competition policy can be used in a complementary way to achieve environmental targets at the lowest possible cost for the economy. Ultimately, the DoECLG should aim to choose a model of competition and an environmental policy that allows Ireland to improve the environmental management of waste while keeping down the overall cost to households. If competitive tendering is adopted in the household waste collection market, avoiding the pitfalls of competitive tendering is key to realising the intended benefits. This submission sets out how to maximise the benefits of the competitive tendering in household waste collection market.

The Competition Authority's Position

- 1.3 Following an investigation in 2005, the Competition Authority ("The Authority") found that the market for household waste collection was not working well for consumers.¹ The Authority proposed that a system of competitive tendering for the market should replace the existing system of side-by-side competition.
- 1.4 The market for household waste collection services has changed considerably since 2005. There are no public monopolies left and many more private businesses have entered the market. The Authority's position has changed slightly as a result.
- 1.5 While still recognising the potential gains to be made from switching to competitive tendering, there are pitfalls associated with this model of competition that would need to be closely and expertly managed. If this is not done properly, a switch from side-by-side competition to competitive tendering risks incurring costs without achieving the intended benefits and even making the market for household waste collection less efficient. From a competition perspective, there may be merits in retaining side-by-side competition in areas of high population density, if such an approach is not too administratively costly or legally difficult.
- 1.6 Whether side-by-side competition is working well for consumers from an <u>environmental</u> point of view is not a matter that the Authority is in a position to assess.

Competitive Tendering v Side-by-side Competition

 $^{^{1}}$ The Greenstar decision note (E/05/002) is available at: <u>www.tca.ie</u> .

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- 1.7 In theory, competitive tendering is always superior to side-by-side competition. It maximises economies of scale and density thus lowering the cost base of waste collectors and these savings can be passed on to consumers.
- 1.8 In the real world, however, there are pitfalls associated with both competitive tendering and side-by-side competition. For example, both models of competition can result in a private firm providing services for a long period of time with only a very limited competitive constraint - in effect a private local monopoly. The introduction of competitive tendering uniformly at a national level does tend to reduce the number of potential bidders. This can reduce the effectiveness of the competitive tendering process over time. By contrast, side-by-side competition is less rigid and more dynamic. It provides a constant competitive constraint, visible choices to consumers, and encourages operators to use more efficient technologies and work practices. Over time, however, waste collection firms exiting the market through business failure or mergers can result in market dominance by private monopolies in local markets. The one empirical study of the impact of side-byside competition on waste collection prices has found that it has not yielded significant savings.² Avoiding the pitfalls of competitive tendering is vital to realising the intended benefits.
- 1.9 Few countries have attempted to move directly from a system of side-by-side competition to competitive tendering most have gone directly from public monopoly provision to competitive tendering. Thus there is little empirical evidence on the extent to which competitive tendering for the collection of household waste will in practice result in cheaper prices compared to side-by-side competition (especially for more densely populated areas). What little evidence exists does suggest there are savings to be made. At the same time, there are costs involved in moving to a competitive tendering system, including the need to develop expertise in public procurement in this area at a central level.

Maximising the Benefits of Competitive Tendering

- 1.10 There are many pitfalls associated with competitive tendering; there are opportunities for anti-competitive behaviour and incumbent providers becoming entrenched private monopolies over time. If these pitfalls are not dealt with seriously, switching to competitive tendering may in effect reduce competition in waste collection in Ireland and ultimately raise prices.
- 1.11 It would not be sufficient to legislate for the introduction of competitive tendering and expect local authorities to implement the legislation alone. To maximise the benefits of competitive tendering:
 - The tendering process needs to be carefully designed to maximise the number of bidders in the short run and long run.
 - The tendering process needs to be carried out in a way that avoids and detects bid-rigging and collusive tendering by

² DEHLG (2009), *International Review of Waste Management Policy*. Available from: www.environ.ie

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cartels. The characteristics of waste collection services make them particularly amenable to cartel behaviour.

- To ensure fair competition between in-house local authority operators and private operators, the dual role of local authorities as both operators and regulators would need to be addressed.
- To ensure all of the above, the competitive tendering process for household waste collection services, which is likely to be extremely complex, should be overseen by a body that goes beyond local authority boundaries.

This submission provides more specific advice on the ways to avoid competitive tendering resulting in either a cartel or series of entrenched monopolies.

- 1.12 The Authority therefore welcomes the proposal in the Programme for Government that tender bids will be judged and awarded by a new Utilities Regulator. If local authorities were to carry out the tendering process, a national procurement unit for waste collection would be beneficial to offer expertise to procurers on how to get the most from competitive tendering and to facilitate interauthority cooperation on cross-border tenders.
- 1.13 Competitive tendering for household waste collection will have a significant impact on the structure of all waste markets, including treatment and disposal. Directing collected waste to particular treatment facilities could harm competition between treatment facilities at the same level of the Waste Management Hierarchy.
- 1.14 A flexible system of levies, in line with stated public policy objectives, would be a better policy for encouraging competitively priced recycling and waste treatment markets than directing waste to particular treatment facilities. The levies could be altered to reflect changes in the economics of waste management.

2. THE POLICY ENVIRONMENT

- 2.1 The household waste collection market is influenced by environmental policy that is shaped by the internationally adopted Waste Management Hierarchy (see Fig 1). This Hierarchy favours waste prevention methods over disposal.
- 2.2 Competition policy can support environmental policy by lowering the cost of diverting waste away from the least favoured disposal methods. Environmental policy can also influence the level of competition and thus the overall cost of waste collection.
- 2.3 A model of competition and an environmental policy that allows Ireland to improve the environmental management of waste while keeping down the overall cost to households would be the best outcome for households, the environment and the economy. This section briefly explains the relationship between competition and environmental policy in the context of the current household waste collection market.

Environmental Policy

2.4 Waste policy in Ireland must be compatible with the internationally adopted Waste Management Hierarchy. The Hierarchy states that the preferred option for waste management is prevention and minimisation of waste, followed by re-use and recycling, energy recovery (i.e. incineration) and, least favoured of all, disposal in landfill.

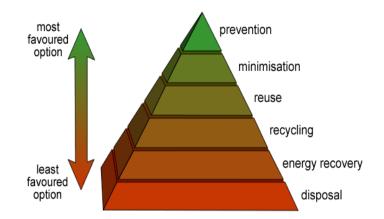
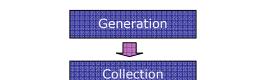


Figure 1: The Waste Management Hierarchy

2.5 Appropriate environmental policy ensures the right incentives are placed at each level of the Waste Management Hierarchy. For example, industry levies can place different incentives at different levels of the Hierarchy to divert waste towards the most favoured options. Additional policy measures can also be used to direct waste towards favoured treatment options. For example, EU Landfill Directives require that by 2016 Ireland can landfill only 35% of the biodegradable municipal waste generated in 1995.

Competition Policy

- 2.6 The household waste management industry is comprised of a number of segmented activities: generation, collection, separation, processing and disposal (see Fig 2 below). These are vertically-related activities; the output of collection is an input to the separation and processing markets.
- 2.7 Competition at each level of the waste management industry encourages waste management companies to keep their costs down. Furthermore, competition at one level of the waste management industry can also affect costs at another level on the vertical chain. For example, a lack of processing facilities for aluminium will increase household collection costs. It is critical for Ireland's national competitiveness that the cost of waste collection for households and businesses is kept as low as possible.



Separation Processing Disposal



Environmental and Competition Policy

- 2.8 Competition policy can support environmental policy by ensuring that the objectives of the Waste Management Hierarchy are met at the lowest possible cost to households. Competition at each level of the waste management industry ensures that the price for waste management services reflects the true cost of providing each of these particular services. The use of levies and the EU Directives can ensure that the least favoured options, such as landfill disposal, are discouraged.
- 2.9 For example, competition can encourage waste collectors to offer a cheaper and better quality green-bin collection service compared to their competitors. A levy will ensure the cost of black-bin disposal is significantly higher. This will encourage recycling and divert waste away from landfill at the lowest possible cost to consumers.

2.10 The question facing the DoECLG is which model of competition will best facilitate the management of waste in line with the Waste Management Hierarchy while also minimising the cost of waste collection. This decision is faced in the (internationally) unusual context of a market where private companies have been allowed to enter the market and compete side-by-side with public providers.

3. ALTERNATIVE MEASURES FOR IRISH HOUSEHOLD WASTE COLLECTION

- 3.1 The DoCELG consultation document mainly considers franchise bidding for the Irish household waste collection market. The main justification given by the DoCELG for introducing franchise bidding is to achieve the benefits associated with the economies of density in waste collection services. However, the Department also raises the following questions "Should the Government be considering alternative to franchise bidding and, if so, which alternatives are appropriate and why?"³
- 3.2 In theory, both side-by-side competition and competitive tendering, when compared with public monopolies, reduce the costs of household waste collection. Furthermore, competitive tendering is considered superior to side-by-side competition because it maximises economies of scale and density and these savings can be passed on to consumers. However, it is not clear that the benefits of competitive tendering over side-by-side competition are always substantial or easy to achieve.⁴
- 3.3 In the real world, there are pitfalls associated with both competitive tendering and side-by-side competition. For example, both side-by-side competition and competitive tendering could result in a private firm providing services for a long period of time with only a very limited competitive constraint in effect a private local monopoly. Avoiding the pitfalls of competitive tendering is key to realising the intended benefits associated with it.
- 3.4 There may be merits, from a competition perspective, in retaining side-by-side competition in high population density areas. Side-by-side competition is more dynamic and less rigid than competitive tendering. It provides visible choices to consumers. The costs and benefits of different models for household waste collection depend on a number of conditions, such as, household density, geographic market size, the regulatory environment, and waste generation (consumption) habits in each specific local market. However, the legal and administrative cost of assessing each specific local market to see which model works best may be excessive.
- 3.5 The practical issue for consideration in Ireland is how replacing existing side-by-side competition with competitive tendering compares with retaining at least some existing side-by-side competition. This section outlines these issues in more detail.

Change in the Competition Authority's Position

3.6 Following the Greenstar investigation in 2005, the Authority found that the market for household waste collection was not working well for consumers. Our enforcement decision recommended that "competition for the market should replace the existing model of

³ Question 2, page 8, The Consultation Document.

⁴ OECD (2008), Ireland Towards an Integrated Public Service. Available from: <u>www.oecd.org</u>.

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competition within the market, i.e., where waste providers compete side-by-side with each other." $^{\rm \scriptscriptstyle 5}$

- 3.7 At the time of the investigation, most of the local authorities were still the main service providers for household waste collection in their local areas, i.e., side-by-side competition was allowed but not the norm. Where there was side-by-side competition, such as in northeast Wicklow, the introduction of competition from private sector operators had not worked well for consumers and led to dominant firms. The Greenstar investigation found that Greenstar possessed a dominant position in the market for the provision of household waste collection services in northeast Wicklow. Side-byside competition had resulted in a near local monopoly in this case.
- 3.8 International experience indicates that competitive tendering of waste collection services yields significant cost savings compared to public and private monopolies. For example, Reeves and Barrow (2000) examined the costs of household waste collection in Ireland before and after local authorities contracted out the services, and found 33.5% cost savings after local authorities contracted out the services.⁶ Therefore, we restated our recommendation in 2006 that "the Department introduce competition for the market, i.e. where service providers compete for the right to be the sole provider in the market for a specific length of time. This system should replace the existing model of competition within the market, i.e., where waste providers "compete 'side-by-side' with each other."⁷⁷
- 3.9 Since that time, side-by-side competition in the Irish household waste collection industry has grown following a large increase in private sector involvement. Many private operators have entered the market in the past five years. Although a few local authorities still provide household services, most local authorities have exited from household waste collection completely.
- 3.10 Therefore, the Authority has had to re-evaluate its recommendation in light of the changed market conditions. The decision of whether to introduce competitive tendering must now be made in the context of side-by-side competition being the norm and the existence of a large number of active companies operating in the market for household waste collection. We felt it was no longer appropriate to completely dismiss the side-by-side competition option without further consideration, especially in areas where it had clearly bought benefits to the Irish consumers. This re-evaluation is outlined below.

The Current Household Waste Collection Market

3.11 The level of side-by-side competition in the household waste collection market has increased significantly in recent years. Between 2005 and 2009, the amount of waste collected by private operators increased by 25%. ⁸ There are at least five private contractors now operating in many local authority areas around the

⁵ Greenstar decision note (E/05/002). Available from: <u>www.tca.ie</u>.

⁶ Reeves, E. and M. Barrow (2000), "The Impact of Contracting Out on the Costs of Refuse Collection Services: The Case of Ireland", *Economic and Social Review 31*, pp. 129-150.

⁷ The Authority submission S-06-007.Available to download from <u>www.tca.ie</u>

⁸ EPA (2006-2010), *National Waste Report*. Available from: <u>www.epa.ie</u>.

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country,⁹ and most local authority providers have withdrawn from the market.10

- 3.12 It is difficult to accurately assess whether or to what extent sideby-side competition has lowered household waste collection charges in Ireland. The data available is poor, and factors further up the vertical chain (i.e. landfill gate fees and the price for recyclable waste) can have a major impact on collection charges. The impact of this is difficult to disentangle from the impact of the arrival of private operators.
- 3.13 A report commissioned by the DoECLG using 2006 and 2007 data found that the cost of providing the collection part of the waste management industry (i.e. the price households pay minus the disposal cost) remains high in Ireland.¹¹ That is, the part of household waste collection charges that is directly attributable to the waste collector (and not to landfill charges etc) has not fallen significantly. The waste management industry disputes this findina.12
- More recent household refuse collection charge data published by 3.14 the CSO as part of their Household Budget Survey illustrates that while charges increased annually between 2000 and 2008, since 2008 they have been falling at a faster rate than the Consumer Price Index (CPI) and the EU-15 average.¹³ This would suggest that charges were high to start with, and side-by-side competition, along with falling landfill gate fees, has helped somewhat to lower charges in recent years.
- The exodus of local authority service providers in recent years may 3.15 indicate that private service providers have delivered more efficient services to households or that they have benefited from being able to "cherry pick" where to collect, or both.

Competitive Tendering

- 3.16 The benefits of competitive tendering over public and private monopoly provision are proven in theory and some case in practice. ¹⁴ International experience indicates that competitive tendering of waste collection services yields significant savings compared to monopolies.15
- Both economies of scale and density are found in the household 3.17 waste collection industry. Economies of scale refer to a situation where an operator's average total costs fall as their customer

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⁹ Research conducted by the Authority. Based on a sample of 13 local authorities located around the country: Dublin (4 local authorities), Kildare, Meath, Wicklow, Cork, Limerick, Waterford, Galway, Kilkenny, Offaly.

¹⁰ Source: The Department of the Environment, Community and Local Government.

¹¹ DEHLG (2009), International Review of Waste Management Policy. Available from: www.environ.ie ¹² Source: Irish Waste Management Association.

¹³ Authority calculations using CSO data.

¹⁴ Kemper and Quigley (1976), *The Economics of Refuse Collection*, Cambridge, Mss.: Ballinger.

¹⁵ Ohklsson 1998 "Ownership and Production Costs: Choosing Between Public Production and contracting out", Fiscal Studies, 2003, 24, pp. 451-476.

Mc David James, 2001, "Solid-waste contracting-out, competition and bidding practices among Canadian local governments". Canadian Public Policy, 44(1), pp. 1-25

Dijkgraaf, E., and R.H.Filkippinin, 2002 "Optimal Size in the Waste Collection Sector", Review of Industrial Organization, 20, pp. 239-252.

base/volume of waste collected grows, all other things being equal. Economies of density, i.e., costs/efficiencies associated with a large number of customers located close together, are a significant feature of providing a household waste collection. A provider can pick up more bins in less time by having customers close together. A new operator will have higher operating costs than an existing operator until it achieves sufficient density of households and routes.

- 3.18 In an ideal world, competitive tendering provides all the advantages of economies of scale and density and also competition. A sole operator with a guaranteed customer base can cut costs by using larger more efficient trucks (an example of economies of scale) and by being able to collect all of the bins on a route (an example of economies of density) - compared to, say, three different trucks servicing one street. The competitive constraint provided by the tendering every few years of the monopoly provision of services in an area ensures these cost savings are passed on as lower waste collection charges, rather than kept inside the firm as monopoly profits/or very high wages. US studies on collection costs suggest that no additional economies of scale exist for cities with 50,000 inhabitants or more, but other research has found this to be 20,000 inhabitants.¹⁶ For larger cities, cost of collection increases in proportion to the number of inhabitants. There are few useful studies of economies of density, and in particular how they are impacted by having a three-bin system.¹⁷
- However, in reality, it is not clear that the cost savings from 3.19 economies of scale and density will always be passed on to consumers. Winning operators have more information regarding their market and are likely to win the same contract over time. This could lower the number of potential bidders and lead to local private monopolies. For example, UK evidence suggests that competitive tendering lowers the number of potential bidders.¹⁸ Competitive tendering can also be an ineffective competitive constraint if:
 - There is a lack of competitive neutrality between public and private bidders;
 - There is collusion between bidders;
 - Poor tender design limits the number of bidders.

Section 4 of this submission provides guidance on how to avoid these pitfalls.

3.20 Competitive tendering can be used to improve consistency of service quality and to address the issues of cherry-picking and waste collection fee waivers. For example, the contract can specify the minimum level of service that is required, and stipulate that the

¹⁶ OECD (2000), Competition in local services: Solid waste management. Available at:

 $[\]frac{www.oecd.org}{}^{17}$ Most studies are rather old and refer to single bin systems. A three bins system implies, for example, nine trucks serving an area instead of three trucks. ¹⁸ OFT (2006), More Competition and Less Waste. Available at http://www.oft.gov.uk/

http://www.oft.gov.uk/shared_oft/reports/comp_policy/oft841.pdf

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operator must collect waste from every accessible household in the contracted area.

3.21 Competitive tendering may help the Government to implement and enforce environmental policy. For example, under competitive tendering the Government would have a clear picture of the amount of waste actually collected in each local area. This would provide the Government with better knowledge for preventing illegal dumping and to promote investment, where there is a lack of waste treatment facilities.

Side-by-side Competition

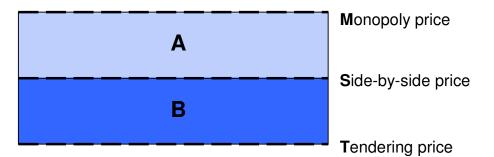
- 3.22 Side-by-side competition in household waste collection encourages operators to use more efficient technology and work practices. There is evidence that service quality has improved since the spread of side-by-side competition in Ireland. For example, some private operators offer additional glass collection services as a way of attracting customers, and some offer more frequent collection of green bins to gain customers.
- 3.23 Consumers in Ireland have seen the benefits competition can bring to waste collection in so far they now face reduced prices and improved service delivery. For example, in August 2010, Cork County Council sold its waste collection business to a private operator and, as part of this sale, the private operator implemented an immediate reduction of 10% in waste charges to all non-waiver customers. It is clear that the constraint from the introduction of side-by-side competition has positively impacted on household waste collection charges in County Cork.
- 3.24 Side-by-side competition is a more flexible and dynamic form of competition than competitive tendering. It provides a constant competitive constraint, rather than competition every few years, and is more responsive to changing technologies and market circumstances. It may also encourage greater innovation in the industry. Maintaining this dynamic side-by-side competition in densely populated areas may help competitive tendering in neighbouring areas to be more effective. Both models of competition will always require some regulatory oversight to ensure that all household waste is presented for collection (i.e; stop fly tipping) and ensure that all households receive a proper waste collection service.
- 3.25 However, side-by-side competition loses some economies of scale and density, which is why it works best in densely populated areas. The desire to reduce costs can result in lower service quality, collectors can "cherry-pick" customers in more affluent areas, and a collector may become dominant in a particular area.
- 3.26 Once a firm has attracted a large number of customers within a geographic area, it benefits from the cost reductions associated with economies of density. Hence, it is difficult for a new firm to enter and compete the same area as it has higher costs (no economies of density yet) but has to offer lower prices and/or better service. If side-by-side competition results in a private monopoly or dominant firm, it is as bad as a public monopoly. The OECD report says "the current Irish system for the household

waste collection sector is not optimal and "free and unbridled competition" would not be appropriate for this sector". ¹⁹

Switching from Side-by-side Competition to Competitive tendering

3.27 The practical issue for consideration in Ireland is how replacing existing side-by-side competition with competitive tendering compares with keeping existing side-by-side competition. It is not clear that the benefits of competitive tendering over side-by-side competition are always substantial or easy to achieve. Few countries have attempted to move directly from a system of side-by-side competition to competitive tendering – most have gone directly from public monopoly provision to competitive tendering. Thus there is little empirical evidence on the extent to which competitive tendering for the collection of household waste will in practice result in cheaper prices compared to side-by-side competition. What little evidence exists does suggest that there are significant gains to be made but this claim is disputed by the waste management industry.²⁰

Figure 3: Economic gains from switching between different models



- 3.28 In theory, both side-by-side competition and competitive tendering reduce the costs of household waste collection compared to public monopolies but competitive tendering is superior, because it maximises economies of scale and density, as demonstrated in Figure 3 above. The actual and relative sizes of the gains to be made from introducing different models of competition ("A" for side-by-side and "A+B" for competitive tendering) are unclear and difficult to measure in reality.²¹
- 3.29 In the real world, there are pitfalls associated with both competitive tendering and side-by-side competition and the potential gains to be made may not always be achieved. For example, the introduction of either model of competition could end up replacing a public monopoly with a private monopoly over time. In such circumstances, the price will continue to be at or near the monopoly level and none of the ("A" and "B") gains above will be realised.

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 ¹⁹ OECD (2008), *Ireland Towards an Integrated Public Service*. Available from: <u>www.oecd.org</u>.
 ²⁰ We have provided a relevant empirical literature review on the Finnish experience of moving

away from side-by-side competition to competitive tendering in Appendix A. ²¹ A and B are depicted as equal in size in this diagram but their true relative sizes are unknown

and will differ in different market circumstances.

- 3.30 With ineffective side-by-side competition, over time waste collection firms could exit the market through business failure or mergers and thus may result in market dominance by private monopolies in local markets. ²² If this is the case, A as demonstrated in Figure 3 cannot be realised through introducing side-by-side competition.
- 3.31 Similarly, and crucially, if the switch to competitive tendering results in collusion among waste collection providers to rig the market so that they can charge higher prices, then none of the "B" gains will be realised and in fact the new price will be closer to the monopoly price. Right now, it is not clear how much of the "A" gains from introducing side-by-side competition in the market have been realised in Ireland.²³
- 3.32 From a competition perspective, retaining the more dynamic model of side-by-side competition in highly populated urban areas, such as the Greater Dublin Area²⁴ may be valuable for consumers in the long run. The introduction of competitive tendering uniformly at a national level does tend to reduce the number of potential bidders and this can reduce the effectiveness of the competitive tendering process over time. However, retaining side-by-side competition alongside competition "for the market" may well prove to be too administratively costly and legally difficult. That is, determining which markets are suitable for side-by-side competition and which are more suitable for competitive tendering is not a simple task and may be subjected to many legal challenges.
- 3.33 There are costs associated with replacing existing side-by-side competition. First, there would be a real need to develop expertise in public procurement in this area at a central level. Second, the OECD, in 2008, suggested that private firms involved have made major investments and created vested interests and changing all the rules at once will have a potentially destabilising impact on the market.²⁵ It may well prove to be legally costly for the Government to replace existing side-by-side competition.
- 3.34 In light of the above, the Authority acknowledges the potential cost saving from competitive tendering, but, we also recognise the difficulties associated with replacing side-by-side competition with competitive tendering.
- 3.35 We recognise that there are important environmental issues to be managed. There may be environmental reasons for introducing franchise bidding. The Department's *Towards a new National Waste Policy* discussion document states "*Changes to household waste collection services will enable greater encouragement and a finer degree of control over the recycling activities of households*".²⁶ This is a matter outside the expertise of the Authority.

²² In Ireland, mergers involving small and medium sized firms in the waste collection industry are likely to fall below the business turnover thresholds that trigger the Competition Authority's power to block anti-competitive mergers.

²³ DEHLG (2009), *International Review of Waste Management Policy*. Available from:

www.environ.ie²⁴ The city of Dublin and various counties in the hinterland of Dublin.

²⁵ OECD (2008), Ireland Towards an Integrated Public Service. Available from: <u>www.oecd.org</u>.

²⁶ <u>http://www.environ.ie/en/Environment/Waste/PublicConsultations</u> A New National Waste Policy
- Discussion Document

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4. MAXIMISING THE BENEFITS OF COMPETITIVE TENDERING

- 4.1 If competitive tendering is adopted in the household waste collection market, it is crucial that the tender design is well organised to ensure that cost savings are maximised and passed on to consumers. We have addressed four main areas where care is required:
 - The dual role of local authorities;
 - The tendering process;
 - A national framework plan;
 - Waste disposal and treatment.
- 4.2 Our views in regard to the consultation document's specific questions in relation to the above areas are set out in Appendix B.

The Dual Role of Local Authorities

- 4.3 When changing the structure of the household waste collection market, it is important to separate operational and regulatory roles. The Authority recommends separating a local authority's regulatory role from its role as a private operator. Separation of these roles helps avoid conflicts of interest between local authorities' interests and the public interest and indeed could increase the efficiency of the tender process.
- 4.4 The dual role played by some local authorities who act as both regulators and collectors and, hence, end owners of waste can create difficulties for their private sector competitors and for local authorities themselves, and harm competition. These difficulties were brought to the fore in the *Panda case*.²⁷ Although most local authorities have exited from the household waste collection market, there are still a few local authorities and other semi-state companies involved in this market. Competitive neutrality between public and private suppliers is important in ensuring fair competition between all operators and maximising the benefits of competitive tendering. All bidders no matter whether they are public or private should be treated equally.
- 4.5 Furthermore, as pointed out by the OECD, "local authorities do not necessarily have the right incentive to engage in procurement and contracting out efficiently. It appears that the higher the level of control that local government have over their own revenues the higher their incentive to organise local services efficiently".²⁸
- 4.6 Ideally, the competitive tendering of waste collection markets in Ireland would be carried out by the Utilities Regulator proposed in

²⁷Nurendale Limited (Trading as Panda Waste Services) Vs Dublin City Council, Dun Laoghaire/Rathdown County Council, Fingal County Council, and South Dublin County Council, [2009] IHEC 588.

²⁸ OECD, 1999, "Competition in Local Services: Solid Waste Management". Available from www.oecd.org .

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the Programme for Government, with appropriate local area knowledge and input from the relevant local authorities.

- 4.7 To ensure fair competition between "in-house" and private operators, local authorities should either discontinue providing collection services, or at the very least, maintain separate accounts for waste collection so that their performance can be demonstrated.²⁹ A better arrangement might be to establish a separate legal entity for collection services, as is done in the UK, including a full physical separation, e.g. in relation to buildings and staff.
- 4.8 If a local authority is to be responsible for the tender process for waste collection in the same local authority area in which they are already responsible for licensing of waste collectors and/or also collect waste themselves, it is imperative that there is also complete separation of those staff appointed to administer the tender process from any local authority staff currently involved in the issue of licences, inspections, enforcement, etc.

The Tendering Process

- 4.9 Research and preparation is necessary to ensure that appropriate markets are chosen for tendering and that this process avoids unnecessary barriers and encourages participation. It is useful to identify inflated tender prices and thus bid-rigging cartels. Speaking with all involved parties is critical for thorough research into the existing household waste collection industry. The benefits of research and preparation cannot be overemphasised in informing the design of any tender process.
- 4.10 Tendering processes and the resulting contracts should be designed to maximise competition, while also achieving the desired environmental outcomes. Competition may be enhanced through tendering processes that:
 - 1. Maximise the number of bidders.
 - 2. Limit the possibility for collusion.

Maximising the number of bidders

- 4.11 If competitive tendering is introduced nationwide, there is a danger that a few large service providers could win most of the contracts and the same provider may win the same contract repeatedly. As a result, many of the small to medium-sized collectors could go out of business. This would reduce the number of future potential bidders and may lead to private local monopolies over time. With it, the effectiveness of competitive tendering is reduced.
- 4.12 It is therefore vital that the tender process:
 - provides key information on the market to all bidders;
 - provides access to essential facilities to all potential bidders;

 $^{^{29}}$ An "in-house" provider that maintains separate accounts so its performance can be demonstrated is known as a Direct Service Operator (DSO) in the UK. Altering the Structure of Household Waste Collection Markets

- uses a contract of appropriate duration; and,
- limits the number of markets in close proximity that a bidder can win.
- 4.13 An incumbent provider may have more information regarding the contract compared to a potential bidder, such as, the density or routes of the contracted area. This type of information asymmetry can reduce the likelihood of a brand new bidder winning the contract, and therefore, ultimately, the number of interested bidders. Therefore, to avoid information asymmetries between the current contract holder and new bidders, it is important to provide key information on the contracted market to all potential bidders. However, care needs to be taken regarding what types of information are really key to share with all bidders. Too much transparency in the bid process could facilitate collusion by allowing members of a cartel to detect and punish deviations from the cartel agreement.
- Incumbent providers already have access to essential facilities in 4.14 some areas, such as, access to existing sorting facilities. This gives the incumbent firm a first-mover advantage in providing the waste collecting services in those particular areas. If this is the case, potential bidders may not be interested in bidding in this particular area on the basis that their chance of winning the contract is very low compared to the incumbent firm. To reduce this type of advantage, it is important that all potential bidders are provided with access to essential facilities.
- 4.15 Contracts should be of an appropriate length to allow suppliers to recover sunk costs made when entering the market. Longer contracts can encourage participation by making contracts more attractive to prospective suppliers, whereas shorter contracts could deter participation. At the same time, contracts should not be so long as to foreclose the market in future by limiting opportunities for new or smaller firms to enter and grow.
- To avoid private local monopolies emerging over time, it is 4.16 worthwhile to maintain at least two collectors in close proximity. For example, if the Galway area would support four contracts, bidding companies may be allowed to win a maximum of three out of the four contracts. This maintains a competitive constraint in the Galway area and helps maximise the number of credible bidders for the future tenders.

Limiting Collusion

- 4.17 Collusion between competitors undermines competitive tendering. It occurs when two or more service providers agree on who will win each tender. It is illegal, as it infringes section 4 of the Competition Act 2002. It usually leads to winning tender prices being too high. It deprives consumers of the benefits of competition and allows service providers to earn higher profits for less effort. Colluding service providers have less incentive to be efficient and innovative, and this also ultimately raises the costs of waste collection.
- 4.18 The characteristics of waste collection make it particularly amenable to collusion. Household waste collection is a relatively homogenous Altering the Structure of Household Waste Collection Markets 16

service. It therefore, is easy for competitors to agree on prices. In addition, customers of household waste collection are easy to divide among the competitors along geographic lines, and any deviation from the market-sharing agreement is easy to spot and correct.

- 4.19 The Authority has published a booklet on "*The Detection and Prevention of Collusive Tendering*" which provides information on steps that can be taken during the tender process to help prevent collusive tendering occurring.³⁰ We have provided detailed answers to the specific questions raised in the consultation document regarding the tendering process in Appendix B. Our views are based on our experience of enforcing competition law in the waste sector.
- 4.20 There are many ways of making it difficult for competitors to collude:
 - make it difficult to identify who are the potential bidders;
 - make it difficult for potential bidders to reach an agreement;
 - make it difficult for potential bidders to detect any deviation from their agreement.
- 4.21 The opportunity for bid-rigging can be reduced significantly if the bidders are not easily identifiable. If participants do not know who are their potential competitors, it is unlikely they will talk to each other about sharing the tendered contract. Thus, procurement officials should always keep the identities of the bidders confidential.
- 4.22 One way of making it difficult for participants to agree on their shares of the tendered contracts is to make it difficult for them to predict the next tendered contract. Repetition of identical tenders tends to facilitate collusive tendering. In contrast, mixing and matching the tendering of different market "lots" over time i.e. tendering different groups of markets and changing the scope of individual markets over time makes it more difficult for colluding bidders to agree on a strategy.
- 4.23 As mentioned in paragraph 4.13 above, too much transparency in the bidding process is likely to facilitate collusion. Transparency in a tendering process is important, it is critical in assisting a fair tender practice. However, too much transparency allows competitors to detect any deviation from their agreement and be able to punish this type of deviation. Therefore, research and preparation is necessary to ensure only appropriate information is released to all bidders.

A National Framework Plan

4.24 There are substantial benefits associated with an overarching national procurement body being responsible for the overall planning and oversight of the tendering process at national level. We therefore welcome the proposal in the Programme for

³⁰ This booklet is available by contacting the Authority or from our website: http://www.tca.ie Altering the Structure of Household Waste Collection Markets

Government that tender bids will be judged and awarded by a new Utilities Regulator. An overarching national body is needed for:

- centralised expertise in the design of public tendering in the waste sector, in terms of appropriate market definition and contract duration;
- the national overview and development of expertise required to detect and avoid cartels; and
- consistency in national standards and requirements.

Procurement Expertise

- 4.25 The design of competitive tendering in the household waste collection industry should seek to ensure that economies of density are realised without contracts being so large as to unnecessarily reduce the number of competitors. It is important to work out the appropriate geographic market for each contract. Appropriate local markets for tendering purposes may well cross local authorities' boundaries. It would be complicated for local authorities operating the tender process to cooperate to tender out cross-border markets.
- 4.26 Local authorities have very valuable expertise and knowledge in relation to the household waste collection market in their area, including: route possibilities, the density of the population, and the number of existing providers in the area. This practical local knowledge is extremely useful in identifying appropriate markets (and also inflated prices). However, an overall picture of household waste collection at national level and the expertise that comes from repeated interaction with different local authorities is also required.
- 4.27 Therefore, a nationally or regionally administered arrangement for competitive tendering is essential. If local authorities are instead required to run their own competition and draft the particular specifications, local authority staff with appropriate skills may be seconded between authorities to avoid allegations of collusion with or facilitation of certain industry players being made against current staff.

Avoiding Competition Problems

- 4.28 To reduce the risk of collusion, through bid-rigging, and the entrenchment of private monopolies, it is important that the procurement authority has the power to vary the markets being put to tender in size, scope and the number of contracts put out to tender at any one time. Cartels are not limited by administrative boundaries and local authorities are less likely to be in a position to spot certain bid-rigging patterns than someone with a national overview.
- 4.29 A national framework plan would facilitate modification of the tendered contracts over time and also the detection of cartels. This increases the likelihood of the benefits of competitive tendering being fully realised and passed onto consumers.

Consistency

4.30 Planning of household waste collection through a national framework plan would reduce uncertainty and make it easier for waste collectors to plan ahead and invest. According to Forfás, coordinating the regional waste management plans at a national level would "stand to attract investment in waste infrastructure in a way that would maximise potential economies of scale, competition, and enables the market to pass on the benefits to businesses and consumers".³¹

Waste Disposal and Treatment - The Whole System

- 4.31 Given the vertically-related chain within the waste management industry (Figure 2), waste policy needs to take into account the impact of market structure choices at each level of the supply chain and treat the waste management industry as a consistent end-toend system. Within such vertically-related chains, specific policy choices made at one level of the chain could affect the costs and benefits of options at other levels, directly or indirectly.
- 4.32 Competitive tendering for household waste collection may have a significant impact on the structure of all waste management markets and impact on the incentives of firms operating in these related markets. The demand for waste treatment and disposal services is mainly related to the amount of waste collected and how it is presented for collection, e.g., a 2-bin or 3-bin system. Conversely, the price charged to households for collection reflects the costs of disposal, including intermediate treatment. Therefore, the structure of the waste treatment and waste disposal markets in turn impact on the price of waste collection to households. In particular, the availability of capacity and the conditions of competition in the waste treatment and disposal market will ultimately impact the collection price charged to households.
- 4.33 In light of these inter-connections within the waste management system, effective tender design in the household waste collection and the appropriate usage of available market mechanisms are essential to ensure competitive outcomes along the whole waste management system. Once the Government's policy for household waste collection market is decided and in place, the entire waste industry should adjust to this market environment. Waste disposal and treatment markets should then develop and competition within them evolves.
- 4.34 However, competitive waste disposal and treatment markets may not lead to the socially optimal (level of) investment in waste disposal and treatment in line with the Waste Management Hierarchy. In order to encourage investment and innovation in the optimal mixture of treatment technologies, and also to encourage recycling, a system of levies could be put in place on treatment and disposal technologies that reflect the social costs associated with each of the options. A levy on the presentation of waste for treatment and disposal by a particular technology that reflects the full cost to society of the process, including its environmental

³¹ Forfás (2009), *Waste Management in Ireland: Benchmarking Analysis and Policy Priorities* 2009, p 26. Available from: <u>www.forfas.ie</u>.

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impact and long-term treatment needs, will encourage investment in the socially optimal (level of) treatment and disposal facilities.

- 4.35 Such a combination of competition and levies would allow market mechanisms to arrive at an efficient mix of treatment and disposal options. It will also encourage households to recycle since the levies will be reflected in the prices charged to households for collection of each particular waste type.
- 4.36 If the system of levies fails to adequately encourage investment in socially optimal treatment and disposal capacity, then there may be justifications for other more severe market interventions to ensure the necessary investment. For example, a long-term contract may provide incentives for private firms to build the optimal treatment/disposal facilities. However, these interventions should only be undertaken if it is clear that there is not sufficient capacity to meet environmental targets. Any intervention made should have the least negative effect possible on competition in treatment and disposal markets.
- 4.37 Encouraging investment in treatment and disposal facilities requires a clear and consistent national waste policy which provides certainty to the waste industry. The industry has indicated on various occasions that policy uncertainty is one of the main reasons there is a lack of investment in the industry. Therefore, the Authority welcomes this consultation and the consultation on *Towards a New National Waste Policy*. Investment in waste management facilities is likely to resume once Ireland's waste policy is clarified, and so severe market interventions, such as directing waste to particular facilities, may prove unnecessary.

5. APPENDICES

A. THE FINNISH EXPERIENCE

- A.1 Although in theory competitive tendering is always superior to sideby-side competition in household waste collection, empirical economic studies of moving from side-by-side competition to competitive tendering are limited. Most of the literature focuses on moving from a local government monopoly to competition and is in favour of moving to a competitive system, and to competitive tendering rather than to side-by-side competition.
- A.2 Finland is the country where most surveys and studies have been carried out and quoted regarding competition-in-the-market verses competition-for-the-market in the household waste collection sector. In particular, surveys have been conducted in areas where they changed from side-by-side competition to a public tender system. The municipal authority favours centrally-managed collection of residential waste, which gives the municipalities the right to decide on where and how to use the waste, while the industry prefers competition in the market for reasons such as they can compete freely and, moreover, they can freely transport collected waste as they wish.
- A.3 A 1997 survey of the Association of Municipalities in Finland showed that the price for municipal collection of waste was, on average, 20-25% lower than those regions which rely on competition in the market. The Finnish waste management industry disputes these findings.
- A.4 However, Finland has not moved completely from side-by-side competition to competitive tendering for residential waste collection. Currently, about 60% of the municipalities, with about 40% of the population, in Finland still have side-by-side competition for household waste collection.³²
- A.5 A survey carried out by the Finish Association of Environmental Enterprises in spring 2009 shows that in cities with side-by-side competition, 83% of the households would like to maintain it rather than change to the public tender option. The survey was also conducted in north-west Finland, where they had changed from a side-by-side competition to a public tender system a few years previously. "40% of the household would like to have the old system back and only 26% supported the current system. When asked to compare the functionality of the two systems, 57% of the respondents gave excellent ratings to the private agreement (competition in the market) system and only 42% to the public tender system."³³

 ³²Government Institution for Economic Research, Finland, 2010,Page 8 shows the total number of municipalities (about 400) and the graph "kunnan" indicates that the centralized system (competitive tendering) has gained market share going from 100 municipalities to about 160 whereas the non-centralised system, "sopimus", has lost some ground but is still slightly ahead with some 180 municipalities. http://www.vatt.fi/file/vatt_publication_pdf/valm.rap.1.pdf
 ³³Association of Environmental Enterprises, Finland, 2009. The questionnaire was sent to 6,000 households, which were chosen randomly. 1,442 households replied, out of which 78% checked their invoices. 10 public tender cities and 10 private agreement cities were chosen. The basis of choice was that the cities were similar in location/other conditions and had the same number of inhabitants (i.e., one public tender city in Northern Finland with 30,000 inhabitants, etc. This survey is available by contacting the Authority

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A.6 Considering the costs of collection alone when comparing different economic models of waste collection is a relative static approach. Local governments in general do not have the right incentives or expertise to know how to design a waste collection tender to encourage research, development and investment regarding recycling and usage of waste. The VATT report indicates that in Finland, centralised competitive tendering induces an average reduction of 0.39 firms per local government and larger companies are not interested in competitive tendering and rather stay in areas where there is side-by-side competition. This shows that competitive tendering could reduce the actual number of private firms and the size of the private firms.

B. THE TENDER PROCESS - SPECIFIC QUESTIONS

B.1 The benefits of research and preparation cannot be overemphasised in informing the design of any tender process. This research is necessary to ensure appropriate markets are chosen for tendering and the process avoids unnecessary barriers and encourages participation. It can also be useful to identify inflated tender prices and thus bid-rigging cartels. There is no substitute for thorough research into the existing waste collection industry, by speaking with all parties already involved.

Q12 Which agency or authority should perform the detailed design and management of the tender process?

- B.2 The Authority in its bid rigging road show for public procurement officials recommends that those involved in the administration of the tender process should be separate from those currently interacting with providers as part of their work. It is critical that public officials who are involved in providing technical expertise, experience, guidance and advice when devising the technical specifications for the tender are excluded from the "administration" of the tender process once it "goes to market".
- B.3 It is important that, within a specialist procurement unit, access to the list of bidders should be limited to the relevant officials appointed to administer the specific tender process associated with the waste collection service. The Authority publication "*The Detection and Prevention of Collusive Tendering*"³⁴ as well as OECD publication "*Designing Tenders to Reduce Bid Rigging*"³⁵ provide more detailed information on this topic.
- B.4 As outlined in section 4 of this submission, the Authority would suggest that all the tenders be operated by a single national unit. If all tenders are designed and operated by a single national unit, local authority staff who have useful direct experience of local authority waste collection services could be seconded to the national unit when the tenders for their region are being designed.

Q13 How best can the tender process be designed and managed in order to ensure the participation of as many competing service providers as possible?

- B.5 It is widely recognised that encouraging viable small and medium sized household waste collection firms to bid could maximise the benefits of competitive tendering. An increased number of bidders provides healthy competition. These bidders must be credible false bids provide no competitive constraint on prices. International experience suggests collusion is more likely to occur where there are less than 10 competitors. There are various means by which the number of interested bidders can be increased.
 - Reducing the preparation costs of bidding by streamlining tender procedures encourages firms to bid. For example, use the same application forms, provide information in the same format and use electronic bidding where possible.

 ³⁴ This booklet is available by contacting the Authority or from our website: <u>http://www.tca.ie</u>
 ³⁵ OECD, 1999, "Competition in Local Services: Solid Waste Management". Available from www.oecd.org.

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- Ensure that any requirements are reasonable. Make any qualifications as broad as possible so that they can be met by the widest range of suppliers. Specified minimum requirements should be proportional to the size and content of the procurement contract. Incentivise smaller firms to bid on a portion of the contract if this is appropriate.
- Clarity in the description of the market being tendered should assist new entrants in evaluating whether they can realistically bid for a contract.
- Assess bidders during the tendering process rather than prequalifying a reduced group (that can then more easily collude).
- Avoid encouraging firms to send in false bids, e.g. do not have a policy whereby failure to submit a bid will cause a company to be removed from future invitations to bid. Clarify that inability to bid or late submission of an application for one contract doesn't cause the contractor to go on a "blacklist".

Q14 How best can the tender process be designed and managed in order to ensure vibrant competition among service providers?

- B.6 In addition to maximising the number of bidders, using existing local authority knowledge of suitable markets for tenders and avoiding tendering for the exact same contracts over and over again can help provide vibrant competition. Good design of tender specifications can derive only from a clear and real understanding of the existing market, along with knowledge of the difficulties and benefits of privatisation of waste collection services that have already taken place nationally and internationally.
- B.7 Local authorities are best placed to compile and analyse such data for their own area. Their staff can see where and how private operators are currently collecting and use this knowledge to inform a tender design that allows and encourages responses by contractors already operating in the market. It provides the opportunity to learn from and avoid the repetition of any difficulties that may exist under the current regime.
- B.8 Be careful of using intermediaries to administer the tender process. Such intermediaries can have established links in the industry that could result in them being used as conduits for checking information among bidders and collusion.
- B.9 Ensure those managing the tender process are aware of the potential risk of collusion associated with repetitive tendering of identical contracts. Repetitive tendering of identical contracts can provide the opportunity for bidders to identify each other and agree on which contracts they will each "win". One way of reducing this risk is to stagger different tenders and avoid all tenders going to the market together, and to change tenders into different "lots" over time.

Q15 What size, or range, in terms of numbers of households, should tender areas be, and should there be differences between rural and urban areas?

B.10 Research of the existing markets for waste collection will reveal what constitutes a viable size or number of households, be it rural or urban. It has to be assessed on case-by-case basis and it is not realistic to have one-arrangement-fits-all. It is critical to have a national unit which is dedicated to exploring these technical details.

Q16 Should the tender process specify a minimum level of service which all bidding service providers must meet?

- B.11 It is important to allow the market to respond with competitive pricing and innovative solutions. Therefore a good tender design is for the client to describe <u>what</u> they want to achieve, rather than <u>how</u> they wish to achieve it, while drawing attention to any legal requirements. Existing market players and potential bidders are very well placed to come up with solutions that allow them and their clients to share economic, environmental and social benefits. Potential new entrants can rely on a report produced by the local authority describing the existing market as well as the proposed changes, to formulate their bid.
- B.12 Therefore, if there is a specified minimum level of services for all contracts, the specification must not be outlined in an overly prescriptive way. For example, the tender could require a weekly collection but not specify which day of the week to collect.

Q17 Should the tender process permit service providers to compete in relation to service provision, that is, for bidding service providers to offer levels of service superior to tender requirements?

- B.13 It is important that the tender create incentives to encourage bidders to innovate and invest in future capacity. Therefore, once a minimum level of service is set out, the tender process should allow service providers to compete in relation to service provision.
- Q18 How long should contracts last for?
 - B.14 Contracts should be of an appropriate length to allow suppliers to recover any sunk costs made when entering the market. Longer contracts can encourage participation by making contracts more attractive to prospective suppliers, whereas shorter contracts could deter participation.
 - B.15 As the typical asset life is estimated to be around five years, this can be an <u>upper limit</u>. Making the contract short in the first instance, however, would help ensure that if the winning service provider is inefficient, the costs are borne by the service provider and not consumers.

Q19 What measure should be taken to ensure that, following the selection of a winning bid, service interruption does not occur?

B.16 To avoid this, the contracts should be awarded in sufficient time ahead of the commencement of collections services to allow successful bidders enough time to employ staff, procure vehicles, have licences in place etc

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Q20 What measures, if any, should be taken to help ensure that a winning bidder does not have a significant advantage over competing bidders in the subsequent tender process?

- B.17 It is critical that inspection and enforcement work is carried out during the first contract period to ensure compliance with the law and conditions of the contracts awarded. Knowledge gained during this inspection and enforcement - such as, labour, fleet, provision of customer bins, licence fees, insurance - could provide meaningful information to the procurers as to what advantage the winning bidder may have over the competing bidders in the subsequent tender process. Once procurers are clear on what type of advantage the winning bidder holds against its competitors such as knowledge of the true value of the contract or the value of any relationship-specific investments winning bidder has made - it then can make any changes necessary in subsequent contract periods to minimise those advantages.
- B.18 For example, if a winning bidder has an information advantage regarding the value of the contract, procurers may wish to alter the contract by mixing and matching different "lots" to avoid using the same contract. This issue has also been addressed in section 4 of this submission.