

Marton cum Grafton Parish Council

NYCC/CYC Waste PFI

This report updates an original submission made to the NYCC PFI Working Group in August 2010.

It is informed by discussions with NYCC officers taken since its original submission.

The changes represent updates to waste flow projections.

The core argument that the NYCC PFI is too large, that in future waste volumes will fall, and that there are better alternatives remains unchanged.

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Summary

- 1** This report is prepared by Marton cum Grafton Parish Council and explains the concerns that we have regarding the NYCC waste PFI project. Applying sensitivity analysis to realistic waste forecasts indicate that the PFI contract would be more costly than the “Do Nothing” option.
- 2** Our core argument is that the planned facility is too large for the likely volumes of municipal solid waste over the next 25 years and therefore too costly in both capital and running costs. We conclude that more relevant assumptions regarding kerbside recycling, and waste change due to economic and population growth, mean that volumes of residual municipal waste (that left after household recycling) reaching Allerton Park will fall over the next 25 years.
- 3** The current scheme therefore has significant financial risk because of its over-capacity. In addition, the recent credit crunch has significantly affected the financial viability of other PFI contracts, such that a scheme conceived over 5 years ago is no longer as financially attractive as originally thought.
- 4** NYCC/CYC carries significant added risk because planning permission has not been granted for the proposed site and the proposal is proceeding in the absence of an up-to-date core Minerals and Waste Strategy. Should planning permission be refused then the entire scheme will fail. If it succeeds, we understand that the split nature of the contract with AmeyCespa means there could be significant increases in costs in the time interval between the completion of the commercial and financial contracts. This is a major financial risk for NYCC/CYC.
- 5** As we understand the arrangement, any excess capacity will be used for commercial waste. NYCC/CYC should not be using PFI and ratepayer funds to pay for the construction and running of a facility that a private contractor will use for commercial waste disposal.
- 6** We report that during its road shows, AmeyCespa has stated that it has no experience of operating incinerators in the UK and only one worldwide.
- 7** We recommend that the NYCC/CYC Councillors critically assess these issues to satisfy themselves as well as the ratepayers of North Yorkshire, that the PFI project is fit for purpose.
- 8** The conclusion we draw from our analysis is that the PFI project fails this test and that NYCC/CYC should not approve this scheme. We illustrate that there are alternative strategies that could be pursued that are more flexible, less risky, less costly and more likely to secure public acceptance.

Introduction

9 There is no disputing that North Yorkshire faces a serious challenge in how to deal with its municipal household waste. The key drivers behind this challenge - the need to reduce landfill and avoid associated taxes, and a commitment to minimising pollution - are clear to all. In this regard, Marton cum Grafton Parish Council is fully supportive of the drive to secure a long-term solution to the county's waste problem.

10 The present Allerton Quarry landfill site is partly located in our Parish and has been a processing and disposal site for a large amount of NYCC/CYC household waste for over a decade. During its operation we have not objected to a single related planning application. Although we have raised concerns about the current PFI proposal, we have done so with a focus on the wider waste strategy for the county and not as a single issue campaign group. We are not opposed to any specific type of technology for managing the county's waste, be that incineration or any other, nor are we necessarily opposed to the use of Allerton Park for waste management purposes. We do, however, support solutions to our waste problem that are as high up the Government's "waste hierarchy" as possible. This means a preference for solutions that involve re-use and recycling over others.

11 What concerns us is the proposed solution to the county's waste problem that has been made public since the announcement of the preferred contractor (AmeyCespa) in June 2010. Our main issue stems from the base-line planning assumptions relating to waste volumes which we demonstrate are incorrect, and the associated technical solution that we consider is too large, too expensive and too wasteful.

12 Our contention is that the current strategy is flawed and requires reconsideration. It carries significant and unnecessary financial risks and is contrary to the good stewardship for the environment of which NYCC/CYC should be proud.

The key assumptions

The Waste Strategy, the BPEO and the OBC

13 The current position is the outcome of a process that began 7 years ago with the introduction of the Waste and Emissions Trading Act 2003 ("WET Act"). This led to a joint municipal waste management strategy that was called "Let's Talk Rubbish" and was published in 2002. The key thrust of this strategy was to increase the volume of waste recycled and to reduce the quantity of waste being sent to landfill.

As part of the development of the strategy the councils explored what might be the best practicable environmental option ("BPEO") for future management of the councils' waste. The BPEO (January 2005) argued that the councils would need to invest in capital infrastructure to manage future waste arisings. It informed an updated revision of the waste strategy that resulted in the publication of "Let's Talk Less Rubbish" in June 2006. To assist the councils in their wish to invest in capital infrastructure, they applied for Government support under the PFI scheme, submitting an Outline Business Case (OBC) in 2006. This was approved for £65m credits.

14 This foregoing brief summary is necessary since it identifies that the original BPEO, the “Let’s Talk Less Rubbish” strategy as well as the OBC are all seriously out-dated. Many of their assumptions are no longer valid. These include the following:

New Government policy

15 The new coalition Government is committed to moving towards a “zero waste economy”, a “massive increase in recycling”, and a significant increase in the production of energy from biodegradable waste, especially anaerobic digestion (AD)¹.

16 The Government is conducting a fundamental review² of waste policies in England. The review will consider what policies are needed to reduce the amount of waste generated and to maximise re-use and recycling, while also reflecting on how waste policies affect local communities, individual households and businesses. The findings of the report will be published in the summer of 2011.

17 Initial signs, drawn from the Government Infrastructure Plan³ published in October 2010, indicate that the review will promote waste management schemes that are “in accordance with the waste hierarchy” and which “encourage local authorities to work with their communities to provide the right household waste service for their circumstances, including providing incentives to households to recycle more”. The Government also intends to “establish the best way to promote and incentivise renewable energy from waste, including anaerobic digestion for suitable waste streams”.

18 We argue that NYCC/CYC should not commit to the PFI project until the outcome of the Government waste review is complete. This is because the PFI project and the waste strategy it implies are at odds with the new Government approach to waste by their focus on incineration as the chosen method for extracting energy from waste, and because the county has placed inadequate emphasis on recycling. The county has also failed to adequately consult with communities on the proposed technical solution under consideration.

19 The recent Comprehensive Spending Review⁴ also demonstrates the wisdom of waiting until this review reports. For example, the CSR and the National Infrastructure Plan, have made it clear that Government will introduce a Renewable Heat Incentive from 2011-12. The Allerton Park facility will not recover heat and cannot benefit from this. In addition, the CSR states that the efficiency of Feed-In Tariffs will be improved at the next formal review, rebalancing them in favour of more cost effective carbon abatement technologies. Incineration is one of the least effective carbon abatement technologies.

New EU policy

20 Implementation of the EU Waste Framework Directive (WFD – Directive 2008/98/EC)⁵ in the UK will likely provide further impetus to waste prevention, with a new obligation for member states to design and introduce comprehensive waste prevention programmes by 2013. This will require an increase in waste prevention, an “upstream” solution that will reduce the amount of waste generated in the first place. This is part of a package of measures that will result in less waste being produced and will in turn drive down total

¹ http://www.cabinetoffice.gov.uk/media/409088/pfg_coalition.pdf

² <http://www.defra.gov.uk/corporate/consult/waste-review/index.htm>

³ http://www.hm-treasury.gov.uk/ppp_national_infrastructure_plan.htm

⁴ http://www.hm-treasury.gov.uk/spend_index.htm

⁵ Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives, Official Journal of the European Union 22.11.2008, L 312/3. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:312:0003:0030:en:PDF>

household waste. This is contrary to the planning assumptions in the current PFI project that wrongly assumes a significant increase in household waste due to economic growth over the course of the contract (see below). This simply will not happen.

Changes in public attitudes towards recycling

21 The public are now much more receptive to recycling. Where people are given the opportunities to recycle, compost and re-use, they do. Within our own county, some collection authorities are already achieving 53% kerbside recycling. This is already 3% higher than the NYCC/CYC target for kerbside recycling in 2020⁶ and shows the potential for the county to significantly exceed this target. Nationally, many areas are already recycling at over 50%, some above 60%. Ten out of eleven integrated waste management options⁷ considered in the BPEO assumed maximum recycling rates of only 45% - the BPEO is therefore not relevant to today's situation *after only 5 years*, let alone the next 25.

The credit crunch

22 The current PFI proposal was developed prior to the credit crunch. The profound impacts of this event on the financing of PFI projects are reviewed by the National Audit Office (August 2010)⁸. Their report notes that before the credit crunch, the part of the project risk (the PFI loan margin) averaged around 1 percent, or less. However, the subsequent restrictions on finance saw the total interest of bank finance for PFI contracts increase by one-fifth to one-third.

23 Of 35 projects agreed since the height of the crunch, the NAO conclude that the PFI loan margin has widened significantly to around 2.5% on average. An example cited in the report from the Greater Manchester Waste project indicates that this will rise to more than 3% in stages over the project life. This added 31% to the Greater Manchester Waste contract price (see Table 1).

The NAO report notes that banks are now demanding more equity from bidders, less debt and better cover. There are also limits on future cash withdrawals as projects generate revenue. All of these have potentially significant implications for the NYCC/CYC PFI – implications that have not been made public or reported to the county councils. We are not aware of any update of the affordability gap relating to the current PFI although we are advised that NYCC will present data to the Councils in December. This is too late – the public should be told about this NOW.

Moreover, in presenting the Councils with an “affordability envelope”, NYCC will effectively be signalling to AmeyCespa the upper limit to which they can drive costs before financial close. There is no doubt that this affordability gap will be squeezed significantly and costs will rise.

24 The NAO concludes that there can no longer be a presumption that PFI will be value for money, that projects with cost increases of 15% should be re-evaluated and that the level and cost of debt should be subject to a sensitivity analysis. In our discussions with NYCC officers we asked to see evidence of such sensitivity analysis but it was not provided, and we therefore concluded it had not been done.

⁶ <http://www.defra.gov.uk/environment/waste/localauth/funding/pfi/documents/project-york-nyorks-sept2009.pdf>

⁷ Table 3.2, page 3-12, Assessment of the Best Practicable Environmental Option for Municipal Solid Waste Arising in North Yorkshire County Council & City of York Council Final Report, January 2005.

⁸ HM Treasury (2007). Financing PFI projects in the credit crisis and the Treasury's response. National Audit Office. http://www.nao.org.uk/publications/1011/pfi_in_the_credit_crisis.aspx

Table 1

Comparison of interest rates on PFI projects⁹

	Standard deals		Large deals		
	Pre crisis	Post crisis	Pre crisis	Post crisis	
Key costs	Sample project (2007)	School sample (2009)	FSTA	GMW	M25
Level of risk	Various	Low	High/medium	High	Medium
Interest rate margin (%)	0.79	2.51	1-1.15	3.25-4.5	2.5-3.5
Total interest cost (%)	5.9	6.9	5.9-6.1	7.7-8.91	6.9-7.9
Increase post crisis (% _{min})	-	+18	-	+31	+17

NOTES

- 1 The indicative level of project risk shown above illustrates the fact that the projects are not directly comparable. The change in interest margin percentages partly reflects this.
- 2 The Future Strategic Tanker Aircraft (FSTA) project raised funding of £2.5 billion. Greater Manchester Waste (GMW) borrowed £582 million.
- 3 The increase post crisis will rise with stepped increases in the interest rate margin if refinancing does not take place.

Recent advances in technology

25 Recent advances in technology make statements by the BPEO and AmeyCespa no longer accurate regarding specific technologies. For example, the BPEO concluded that incineration was more attractive than anaerobic digestion (AD) because the former was a tried and tested method. At their road shows and in material presented to County Councillors, AmeyCespa are also now claiming that the combination of AD with mechanical and biological treatments (MBT) is “not proven” as a technology. Both the above claims are outdated and simply not true – they are also fundamentally at odds with the stated Government attitude towards this technology. It is interesting to note that in the last few months AmeyCespa acquired Donarbon¹⁰, the waste disposal company responsible for delivering the Cambridge Waste PFI. This facility involves MBT with in-vessel composting as core technologies.

Developments in recycling markets

26 Markets for recyclates are developing rapidly as recognition grows that waste is a resource and not something to be either buried or needlessly burnt. This trend will continue and likely accelerate as Government and EU policy towards waste continues to evolve in favour of increasing recycling and as the value of commodities rise.

⁹ HM Treasury (2007). Financing PFI projects in the credit crisis and the Treasury’s response. National Audit Office. http://www.nao.org.uk/publications/1011/pfi_in_the_credit_crisis.aspx, Figure 4, p. 9.

¹⁰ <http://www.donarbon.com/mbt>

27 The PFI project envisages selective extraction of those recyclates that have the highest market value – the rest will be burnt. AmeyCespa has indicated that as markets develop in the future, for example by an increase in AD, then it can modify and expand its AD capacity. But this will not be accompanied by any reduction in the size and cost of the incinerator, which requires operating at continuous high capacity to repay the very large front-end capital costs. So, adaption will mean increased capacity at Allerton Park for commercial activities because of the restrictions caused by existing and inflexible capital infrastructure.

28 One way to assess the value of the recyclate market is to compare the Gate Fees charged by different types of waste management solutions – in other words, how much per tonne it costs to process waste using a particular technology. Obtaining data on Gate Fees is difficult, and AmeyCespa has refused¹¹ to disclose what its Gate Fee will be and how it compares to other Gate Fee markets in the North Yorkshire and the north of England. We believe this is a critical issue for consideration by NYCC Councillors.

29 Annual reports on average Gate Fees are published by WRAP. Their latest report¹², published in August 2010, provides a review of different processes (Table 2).

Table 2

Summary information on gate fees

Treatment	Grade / material / type of facility	Median ¹	Range
MRF	Cans/plastic/paper/card	£24	£6 - £50
Composting	Open-air windrow (OAW)	£23	£12 - £49
	In-vessel (IV)	£38	£15 - £70
	Anaerobic Digestion ² (AD)	£52	£40 - £65
Landfill	Gate fee only	£22	£8 - £42
	Gate fee plus landfill tax ³	£54	£40 - £74
Incineration	All facilities ⁴	£68	£24 - £141
	Post-2000 facilities	£83	£68 - £141
MBT		£62	£42 - £82
Wood reprocessors ⁵	Grade A	£20	£0 - £45
	Grade B	£31	£25 - £38
	Grade D	£35	£25 - £47

30 The WRAP report concludes that Gate Fees at material recovery facilities (MRFs) that recover and recycle waste are substantially lower than those for incineration. This continues a trend established in their 2009 report. They note that new incinerators have much higher Gate Fees compared to older facilities. One local authority cited in their report indicated that their Gate Fees had increased because of a change in their waste composition which resulted in a lower calorific value (due to recycling). Most local authorities indicated that the Gate Fees they were charged reflected a contractual payment mechanism linked to RPI or other indices.

¹¹ Mr Jarvis (AmeyCespa) email to Mr Long (Chair, Marton cum Grafton Parish Council), 4 August 2010.

¹² http://www.wrap.org.uk/recycling_industry/publications/gate_fees_report_09.html

31 The WRAP survey indicates that the median cost of incineration is £20 per tonne higher than for a mechanical / biological treatment facility. It is worth noting that over the course of the next 25 years, NYCC/CYC is assuming that it will be handling about 9 million tonnes of waste. This price differential would, all things remaining equal, be equivalent to an additional cost to NYCC/CYC of incineration over MBT of £180 million. MBT does incur some additional processing costs, but a significant cost differential would remain.

32 For a regional context, Gate Fees for the receipt of black-bag municipal waste at Bradford is presently £69 per tonne, and we understand that the Gate Fee charged for the Ferrybridge facility (see below) for refuse derived fuel (this requires some pre-treatment of municipal waste before delivery via an MBT) is £45 to £50 per tonne.

33 We have asked NYCC and AmeyCespa to define their Gate Fees for municipal and commercial waste compared to the costs being charged elsewhere in the region, and the confidence with which these fees can be predicted over the next 25 years. We have been refused these details on grounds of commercial confidentiality. This means that we are unable to assess claims of value for money in this contract – this should not be allowed.

34 NYCC officers also claim that comparative costs *cannot be calculated* for the NYCC PFI because this would require tendering through a further competitive process. NYCC officers have stated that the project *must* demonstrate value for money since it is the outcome of a competitive bidding process. This is wrong. NYCC must demonstrate value for money by comparing the outcome of this particular process with equivalent costs in alternative markets.

New waste developments in the county and the wider region

35 There are significant recent developments in the county and also in the wider region that the NYCC/CYC Strategy, BPEO and OBC do not take into account.

36 Within North Yorkshire, NYCC approved in 2009 the development of a 165,000 tonnes per year AD facility at the former Tate and Lyle site as part of the Selby Renewable Energy Park. This will be the largest AD facility in the UK¹³. The site will process commercial waste and was chosen because it is a former industrial site, has a link to the National Grid for the electricity, good services and excellent access to the road network. It demonstrates the potential of AD in the region. To our knowledge the scope of this facility for handling municipal food waste (which by definition includes waste generated from schools, hospitals etc) has not been considered. By contrast, the planned AD at Allerton Park will have a capacity of 40,000 tonnes, of which 36,000 tonnes of residue will be burnt in the incinerator.

37 A second development is the Seamer Carr mechanical treatment facility at Scarborough. This state-of-the-art facility now has excess capacity and recently proudly reported that it has entered into a 3-year deal to process waste imported from Lincolnshire County Council¹⁴. Neither of these illustrative developments are considered by the BPEO or by the proposed PFI project – they and others need to be if NYCC/CYC is to avoid generating excess capacity and fail to take advantage of the capacity that exists already in the county.

¹³ <http://selbyrep.co.uk/news/selby-renewable-energy-park-receives-government-funding/>

¹⁴ <http://www.scarborougheveningnews.co.uk/news/Green-waste-makes-cash-for.6338397.jp>

38 Beyond the county there are significant developments in waste treatment that are also not considered by the BPEO. The most significant is the proliferation of large new incinerators planned in the region in Leeds (Ferrybridge and East Leeds), Bradford and Barnsley, Doncaster and Rotherham.

39 Of these, the new Ferrybridge facility is potentially the most relevant, located just south of the North Yorkshire border and well connected to the national grid and the road and rail network. It is at an advanced state with a planning application already under consideration (final decision expected late 2010; Wakefield Council approved the plan in June 2010) for a 1 million tonne per year energy from waste facility that will burn refuse derived fuel¹⁵. The Allerton Park facility will produce refuse derived fuel as part of its process. Scottish and Southern Electricity are looking to attract waste from an 80-mile radius and Gate Fees are expected to be c. £45 to £55 per tonne.

40 These schemes will significantly change the waste market in the region. Already there is evidence of market saturation meaning that there is not enough waste to fuel the growing regional, national and international market in waste for incineration¹⁶. This will potentially have two impacts on the NYCC/CYC PFI. The first is that there will be no incentive to recycle more since recycling will reduce the waste required to meet contractual obligations to deliver minimum waste levels to the facility. The second is that assumptions that commercial waste can fill any waste shortfall at Allerton Park need very careful scrutiny, since there is no guarantee that commercial operators will choose to use this facility over other, potentially cheaper, alternatives in an increasingly competitive market.

41 In any case NYCC/CYC should not fund, using PFI credits and rate-payers' money, what would purely be a commercial advantage for AmeyCespa. Claims of third income profit share may sound attractive, but they are not required by this scheme, are not specified in the BPEO of NYCC/CYC waste strategies, and details have not been made public. Indeed, any third income deal needs to be carefully scrutinised against the additional costs associated with the over-capacity that the schemes require for operation.

Waste volumes

42 A critical element of our concerns regarding the PFI is the assumed increase in municipal solid waste over the next 25 years, and the resulting excess waste management capacity. We believe that the county needs a facility that is significantly smaller than that proposed. Target waste volumes of this scale are significantly less than those planned in the PFI and open up opportunities for alternative approaches to waste management that have not yet been considered.

43 There are two key assumptions that underpin the NYCC/CYC waste predictions, i) the rate of growth in municipal waste and ii) the effect of population growth. We consider each of these now in turn.

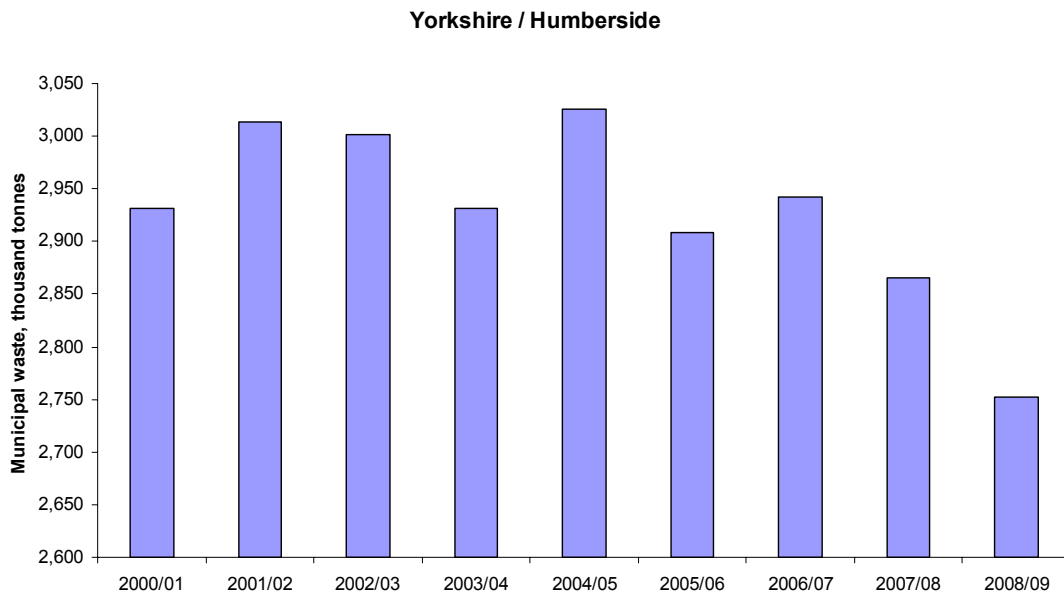
¹⁵ http://www.scottish-southern.co.uk/SSEInternet/index.aspx?rightColHeader=30&id=17456&TierSlicer1_TSMMenuTargetID=292&TierSlicer1_TSMMenuTargetType=Submenu&TierSlicer1_TSMMenuID=6

¹⁶ <http://www.independent.co.uk/environment/green-living/uk-may-have-to-import-rubbish-for-incinerators-2040614.html>

The rate of growth in municipal waste

44 NYCC/CYC assumes year-on-year growth in waste as a result of economic growth in the county. By 2039, NYCC/CYC believes that the Allerton Park facility will be required to process approximately 280,000 tonnes of waste. This is based on an assumed maximum 50% rate of kerbside recycling and a further 5% recycling by the Allerton Park facility¹⁷. We dispute these figures, citing trends in the last decade and also referring to the Government strategy for waste prevention.

45 DEFRA provide comprehensive records of municipal waste trends¹⁸. These show that municipal waste rose to a peak in 2004/05 and has since been falling (see graph below). The regional trends for Yorkshire and Humberside reflect those of England as a whole. Municipal waste levels are falling.



46 The Government Waste Strategy 2007¹⁹ sets the policy context for waste prevention in England. A key objective is to decouple waste growth (in all sectors) from economic growth (contrary to assumptions by NYCC/CYC). The strategy includes a specific target to reduce household residual waste from 22.2 million tonnes in 2000 to 15.8 million tonnes in 2010, with a further aspiration to reach 12.2 million tonnes in 2020. This is equivalent to reducing household residual waste by 45% between 2000 and 2020, and reducing waste per person to 225 kg by 2020.

47 An important driver of reduced waste volumes is a reduction in waste manufactured by packaging. By example, the Courtauld Commitment²⁰ is a cross-industry initiative of all major retail companies in England (covering 92% of the market) and aims to reduce household food and drink packaging waste by 4% by 2014. We argue that it is perfectly reasonable to assume a year-on-year reduction in waste due to these actions, at a rate of

¹⁷ Email from Mr Fielding (NYCC, Assistant Director Waste Management) to Mr Long (Chair Marton cum Grafton Parish Council)

¹⁸ <http://defra.gov.uk/evidence/statistics/environment/wastats/bulletin09.htm>

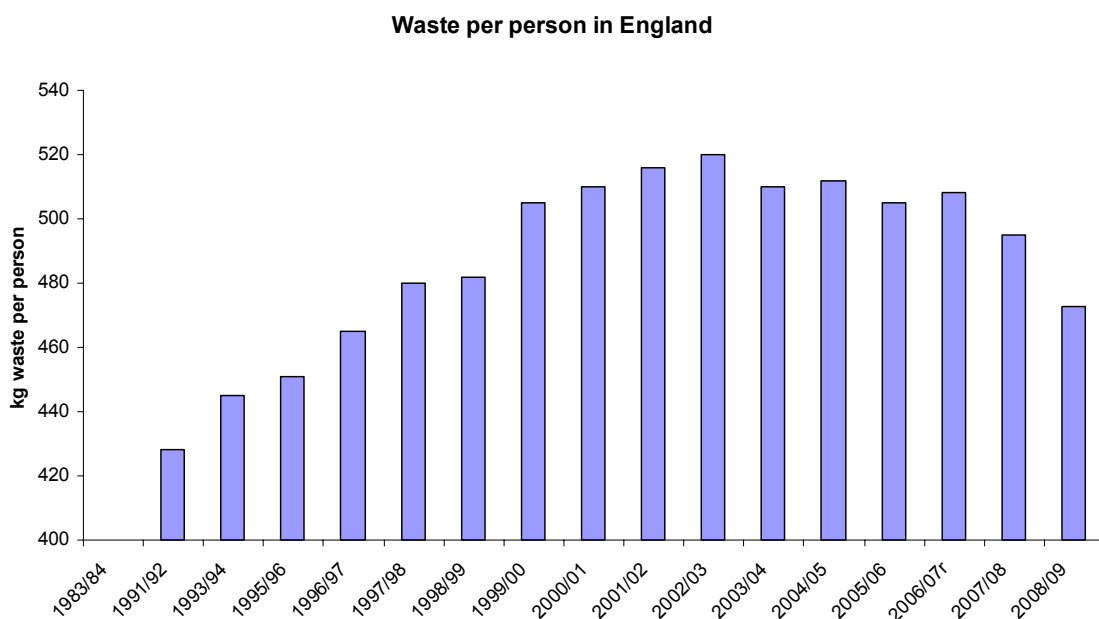
¹⁹ Defra (2007). Waste Strategy for England.

²⁰ http://www.wrap.org.uk/retail/courtauld_commitment/

about 1% each year. Obviously this trend can't continue indefinitely so in our model we allow waste to fall at 1% each year until 2020, after which it stays fixed.

48 We can see the effect of the Government drive to reduce household waste in the graph below, which shows falling waste per person in the UK expressed in kg per head from a peak in 2002/3. The data from Yorkshire and the Humber follow this same trend.²¹

49 Importantly, the graph below shows that during a period of significant economic growth, the amount of waste produced by each person in England fell. The assumption that waste levels will rise inexorably in-line with economic growth is therefore incorrect. By assuming the opposite, NYCC/CYC over-predicts that the required capacity of Allerton Park over the next 25 years by about 30% - equivalent to c. 100,000 tonnes of waste each year.



Population growth

50 NYCC/CYC also contends that a second reason for such a large facility is to anticipate an expected increase in the number of households and population in the county by 2040. We dispute that this is a significant factor. Using data released by the Office for National Statistics (May 2010)²² we estimate that the population of York and North Yorkshire County Council will rise by about 150,000 between 2015 and 2040. This would generate an additional 60,000 tonnes of municipal waste based on current waste volumes per head and assuming a very modest target of 50% kerbside recycling. This is likely a significant over-estimate because of the trend for waste per head to fall and for recycling rates to rise. We demonstrate later that this increase cannot justify building a significantly over-sized facility at Allerton Park.

²¹ Data for the regions are only available for a relatively short period of time. From 2000/01 to 2008/09 household waste fell in Yorkshire and the Humber from 1056 kg per person each year to 696 kg. See reference ¹² for data.

²² Office for National Statistics, May 2010

51 In summary, we think that NYCC/CYC has significantly over-estimated the likely volumes of municipal waste over the next 25 years. In the following section we develop an alternative set of waste predictions that are based on more realistic planning assumptions for recycling and municipal waste production.

Revised municipal waste estimates for North Yorkshire

52 We have developed a model to predict municipal waste arisings in North Yorkshire that is based on a starting value of 512,000 tonnes in 2010. This is the volume of waste before any household recycling.

53 We use this figure following discussion with Mr Ian Fielding in October 2010 when he reported that NYCC's municipal waste had risen from 470,000 tonnes in 2008/9 to 512,000 in 2009/10. This is a large rise and one that is contrary to the trend in recent years in North Yorkshire and elsewhere in the country (see above). Mr Fielding did not explain why there was such a sudden increase in waste.

54 Future waste predictions depend on assumptions that are made regarding kerbside recycling rates, the production of waste by industry (e.g. packaging) and population change. As we explain below, NYCC officers have made some assumptions that we believe are unreasonable and indefensible given what we know about how waste volumes will change in the future. For this reason we develop our own model with what we consider more realistic assumptions about the future. We compare this to the NYCC/CYC PFI model and the proposed capacity at Allerton Park and demonstrate that the facility is far bigger than is required.

Our model assumptions

55 We recognise that recycling rates cannot continue to rise continuously, and that reductions in waste due to packaging will only fall by a certain amount since packaging is a necessary part of commodity sales.

56 NYCC assumes that kerbside recycling rates will stay at 50% for the next 25 years, never rising above this level. We believe this assumption is unreasonable, and instead assume they will rise to 60% by 2020, after which we assume they remain fixed for the rest of the life of the facility.

57 We argue that 60% recycling by 2020 is a perfectly reasonable assumption, noting that the devolved Government of Scotland has already set a target of 60% recycling by 2020²³. Wales has a more ambitious target of 64% by 2019/2020 and 70% by 2024/25²⁴. It is very likely that the British Government will raise its 2007 target shortly; indeed the third review of the Government Waste Strategy published in January 2010 recommended that the target for England be increased to 60% by 2020²⁵. We expect this target to be included in the Government's waste review report to be published in 2011.

58 As outlined above, we assume that the amount of waste being generated by business also falls because of reductions in packaging etc., broadly in-line with targets in the Government Waste Strategy 2007 at a rate of 1% pa until 2020, after which it remains fixed.

²³ <http://www.zerowastescotland.org.uk/>

²⁴ <http://wales.gov.uk/docs/desh/publications/100621wastetowardssummaryen.pdf>

²⁵ <http://www.publications.parliament.uk/pa/cm200910/cmselect/cmenvfru/230/230i.pdf>

59 We allow for future population growth, using ONS population estimates to 2034 and extrapolate to 2040 based on the average trend in the period 2024 to 2034. Our waste volumes are corrected for population growth by assuming current rates of waste produced per head using data from DEFRA²⁶. These are therefore conservative estimates since waste per head is likely to fall in the future.

60 NYCC assumes in their forecast that there will be an additional 5% recycling of waste that arrives at the facility (this was a contract requirement), and has included financial incentives to AmeyCespa if they exceed this 5% level. We argue that this target is far too low, representing a huge loss of potential income to NYCC/CYC and also grossly under-estimating the volumes of waste that can be recycled at the facility.

61 Modern Material Recovery Facilities (MRFs) routinely recover well over 90% of commercial and industrial waste, where the material is not contaminated with food²⁷. Even where food waste is co-mingled with other municipal waste, MRFs can recover 25% of materials for recycling. The Donarbon facility that AmeyCespa recently acquired extracts 25% from its front-end Mechanical Biological Treatment plant²⁸.

62 We therefore assume that the mechanical treatment plant at Allerton Park recovers 25% waste, not the 5% used by NYCC.

63 We are advised by NYCC that 80,000 tonnes of the 512,000 tonnes municipal waste cannot be recycled. We do not understand why this waste cannot be recycled. We retain it in our analysis below but it is important to note that if this 80,000 tonnes if recycled to any degree, it will have a direct and significant impact on diverting waste from landfill.

64 We summarise the results of our modelling in Table 3 and in the graph below.

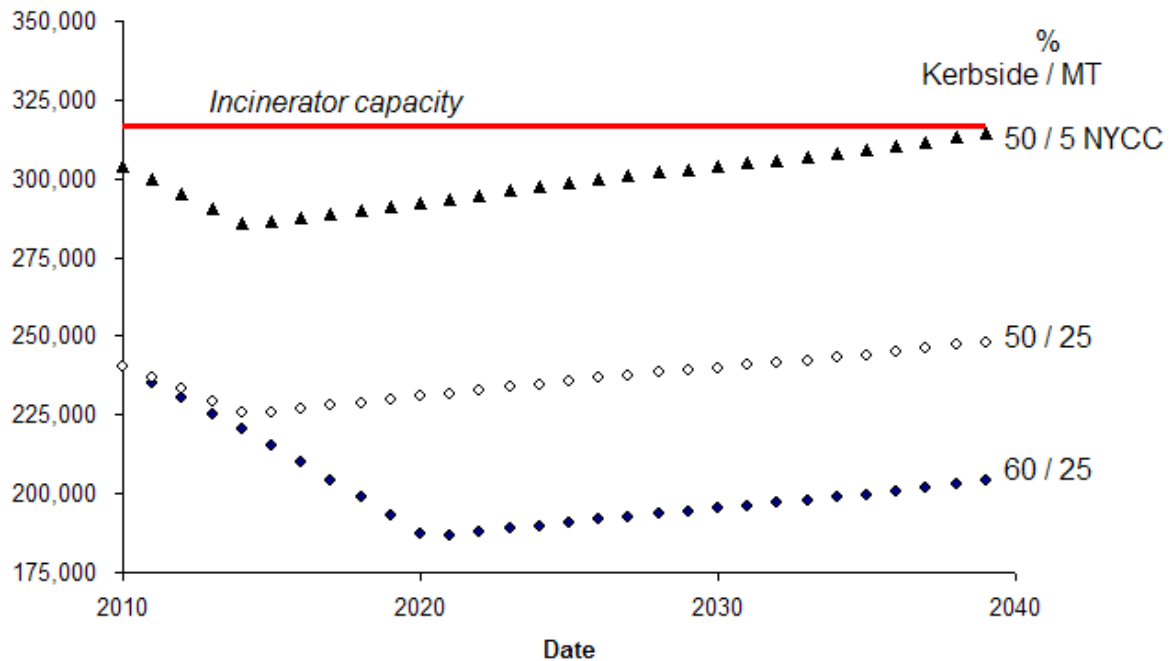
Table 3

	NYCC/CYC PFI (000's tonnes)	Alternative model (000's tonnes)
2010	304	240
2015	286	215
2020	292	187
2025	298	191
2030	303	195
2035	309	199
2039	314	204
Total	9,318	6,330

²⁶ <http://defra.gov.uk/evidence/statistics/environment/wastats/bulletin09.htm>

²⁷ http://www.wrap.org.uk/recycling_industry/market_information/municipal_mrf.html

²⁸ <http://www.donarbon.com/mbt>



NOTES

- 1 The NYCC model above assumes recycling today is at 43% and rises to 50% by 2014. The alternative models assume the same but increase recycling to 60% by 2020 which then remains fixed thereafter. NYCC/CYC PFI assumes recycling fixed at 55% after 2014 (50% kerbside + 5% Allerton Park).
- 2 The graph shows the effect of different assumptions regarding kerbside and mechanical treatment recycling. We vary these between 50% kerbside and 5% mechanical treatment (the NYCC model) and 60% and 25% respectively (our Alternative Model).

65 What this analysis shows is that NYCC/CYC has over-estimated the amount of municipal waste by about 120,000 tonnes per year. Between now and 2040, we estimate that the excess capacity will amount to c. 3 million tonnes of waste. Assuming a Gate Fee for a modern incinerator of £83 per tonne (Table 2), this would equate to c. £250 million of savings over the course the PFI contract.

Planning issues and financial implications

66 Planning permission has not been secured for the Allerton Park site. In this respect, the NYCC/CYC PFI is different to other waste contracts in England because we understand that it requires a split contract. We are concerned that this delay between the completion of a commercial and the financial contracts opens up scope for significant cost variance in the period prior to planning permission, particularly as this could take a number of years.

67 We are concerned that NYCC/CYC is likely to carry significant risks regarding potential interest rate changes in the next 1 to 2 years. Given this, and mindful of the recommendations by the National Audit Office noted above, we recommend that this

project requires a thorough and extensive range of financial scenarios to be modelled. The key issue is that the split contract and the associated lack of financial confidence add significant uncertainty to the current proposal.

AmeyCespa

68 AmeyCespa has been identified via a selection process as the preferred bidder, subject to Council approval. But we think it is important that the members' group is aware of several points regarding AmeyCespa that we think add risk to the project as proposed:

- AmeyCespa currently does not operate any energy from waste facilities in the UK. It has a bid team that is also bidding at two other locations in England.
- AmeyCespa has no experience in obtaining the necessary permits from the Environment Agency for operating an energy from waste facility of this type in the UK. It has no track record in the UK in this area.
- AmeyCespa operates a large waste management operation overseas, but of the 95 facilities it operates, only one of them is an incinerator.
- Finally, by its own admission, the planned combination of facilities is unique in the UK (MBT, AD and incineration with EfW).

The technical solution under consideration

69 The technical solution offered by AmeyCespa has significant uncertainties that we think need investigation. The most significant of these is the very significant over-capacity of the plant noted above. In addition to this we raise the following matters that have arisen during the recent road shows and which is not apparent from their PR material.

70 First, the excess capacity will be filled by commercial waste. AmeyCespa state that they consider that this will be c. 60,000 tonnes per year when the facility opens – “a small hole” – that will reduce to nothing by 2039²⁹. We contend, however, that this waste shortfall will be much larger and rather than falling over time, will increase. By the end of the contract we expect commercial waste to make up a significant amount of the waste processed by the facility.

71 However, relying on commercial waste as a fall-back to operate this facility at capacity is an unnecessary risk for the following reasons:

First, AmeyCespa has stated that they are not able to define the commercial Gate Fee until 3-4 years from now, by which time the facility will be up and running. By then, the regional capacity for handling commercial waste will have changed, as new facilities are built and as the value of the recycling market grows. AmeyCespa's assumption that they

²⁹ Mr Jarvis, AmeyCespa, Arkendale Parish Council meeting, 20 July 2010.

can simply replace any shortfall in Municipal Waste with commercial waste is therefore total speculation – there is nothing concrete on which to test this claim.

Given the high cost of modern incinerator gate fees compared with other technologies, there is no guarantee that commercial waste producers will choose the Allerton Park facility over other competitors. NYCC risks being held liable for penalty payments because of lower than planned Municipal Waste volumes and high gate fees for commercial waste charged by the Allerton Park facility in a fiercely competitive recycling and incineration market in the region.

Second, AmeyCespa claim that 600,000 tonnes of the current commercial waste in the County is suitable for processing in the Allerton Park facility. However, this does not mean that this waste will be available. Commercial waste is extremely attractive for recycling because the material is often pre-sorted and because it is seen as a potential resource by waste producers. Mature commercial recycling facilities can achieve recycling rates as high as 90%, which could significantly reduce the assumed market for incineration by Allerton Park.

Third, it is important to reflect on the potential planning complications that could arise if NYCC pursues a stated policy of supporting the construction of the Allerton Park facility for significant volumes of commercial waste. The PFI project allows for a small amount of commercial waste, but this cannot be stretched to one third or a half of the facility capacity. It is worth stressing that the justification for the present scheme is to fulfil the County's municipal (not commercial) waste strategy, "Let's Talk Less Rubbish." This strategy clearly states that *"the focus of the Strategy is municipal waste, that is, waste under the control of the local authorities. The majority of this type of waste comes from the household."*

72 Commercial waste is regulated by laws that state that the responsibility for waste disposal resides with the business owner. The County's strategy recognises this, stating that *"it is the responsibility of producers of that waste to make sure that it is collected and managed in a responsible and environmentally acceptable manner."*

73 Commercial waste is only mentioned once in the PFI Contract Descriptive Document³⁰ issued by NYCC – the vast majority of the document is about Municipal Waste. On page 4, the Document specifies that the contract will include *"Acceptance of residual MSW [Municipal Solid Waste] delivered to the Treatment Plant(s)"* and *"Treatment of residual MSW to achieve the Contractual BMW and landfill Diversion targets"*. The PFI OJEU advert also states that the private sector partner will be responsible *"for the treatment of residual municipal waste"*.

74 Hence, if it transpires that the PFI contract entails significant support for a facility that handles significant volumes of commercial waste, there could be a claim that the contract awarded differs significantly to that advertised and that NYCC are improperly using PFI and rate payer money for the benefit of a commercial provider.

75 A further concern regarding commercial waste relates to the PFI Award Criteria (page 2) which state that the PFI credits are awarded *"primarily to deliver increased diversion of biodegradable municipal waste from landfill"*. Although the PFI criteria recognise that other waste streams may be included, this is conditional on projects demonstrating that: i) the project continues to deliver value for money in relation to the biodegradable municipal waste being managed through it, and ii) any cross subsidisation of the costs of disposing of non-municipal waste streams is transparent and acceptable to all stakeholders.

³⁰ North Yorkshire County Council and the City of York Waste Treatment Contract Descriptive Document page 4.

76 In summary, assumptions regarding commercial waste are a serious concern since the ratepayers of North Yorkshire are being asked to pay fees for their waste disposal that will support a significant commercial waste facility. If this happens, then the Councils and members of the public will have been grossly misled.

An alternative approach

77 The concerns detailed in this report focus on the assumptions that underpin the waste PFI project. As already stated, our aim is to try and help make sure that this hugely important decision is the correct one and that very expensive mistakes are avoided. We are acutely aware that the cost of any such mistake will be carried by ratepayers across all of North Yorkshire for the next quarter of a century.

78 As part of our considerations, we have reflected on what might constitute an alternative plan based on our detailed review of available data (county, national and EU policies). We note that much of what we outline below fits perfectly well within the original strategy developed by NYCC, for example through its recognition that public involvement opportunities are highest in recycling and MBT options, resulting in much less risk.

- I. Plan on the basis that municipal waste volumes will fall over time and not rise. This means that any facility (or facilities) for waste management should be designed to contract over time and not grow. Don't be blind to future change.
- II. Develop a solution over no more than 15 years. Think back 25 years to 1985 and all that has changed since then; new Government policies, the Waste and Emissions Trading Act, the introduction of the Landfill Allowance Trading Scheme (LATS), fundamental changes in attitudes towards waste minimisation, recycling and composting, the credit crunch and bank collapse, the comprehensive spending review, technological change etc. And now think about what might change in the next 25 years.
- III. Other Local Authorities have already abandoned plans for large capital investment in incinerators and have opted for more flexible and cheaper alternatives.
- IV. Avoid expensive technological fixes that offer no incentive to reduce waste and recycle more.
- V. Invest in education to recycle more and make less waste at the front-end of the process. Investing in education is a one-off cost; unlike ongoing Gate Fees, once behaviour changes, it stays changed.
- VI. Treat waste as a resource. Commit to separate food waste collection so that non-incineration technologies (such as anaerobic digestion), combined with mechanical treatment, can really recycle as much of our waste as possible to maximum effect.
- VII. Develop several options for that component of our waste that cannot be recycled or re-used and assess them against up-to-date and forward-looking criteria. The regional capacity for handling this type of material is growing significantly in the future – we should take advantage of this and not simply ignore it.

- VIII. There is no point in seeking to achieve zero landfill when this is not required immediately; in the long-term yes. We have time to realise long-term and lasting changes in waste management that does not require an oversized waste management facility.
- IX. A key objective of this scheme is to divert 75% of waste from landfill by 2020. But if NYCC achieves recycling rates of 60% by 2020, and if waste arisings fall at the rate that we predict, then this target can be achieved comfortably *without* investing in a hugely expensive incinerator and power plant. This seriously weakens the case for the proposed scheme as the “best” solution for our waste problem. So, NYCC should develop a solution that delivers this objective – not one that is far too big and unnecessarily expensive as a result.

Conclusion

To conclude, the people of Yorkshire have a reputation for independence and for being careful with their money. It is time NYCC and its elected Councillors recognised the risks in this scheme and rejected it in favour of developing an alternative that is a better option for the future of our region.

The Comprehensive Spending Review will have a significant financial impact on NYCC and CYC and the councils will be required to take immediate steps to avoid unnecessary payments in the next 4 years. The waste PFI is one such project that should be shelved, at least until an alternative scheme is developed. The counties can do this without penalty by rejecting the PFI scheme in December 2010.

Significantly cheaper alternatives based on simpler technologies that maximise the financial return from waste recovery should be considered. Such an approach will generate money and help support the regional economy, whilst also achieving the waste diversion targets set for 2020.

We believe that such a scheme could be developed based on increased recycling, mechanical and biological treatment with a final solution for a small amount of waste (10 to 15%) to be decided (it could be land-filled, it could be sent to an existing facility elsewhere for disposal, it could be handled using another on-site process). This would be financially advantageous, be much more acceptable to the public of North Yorkshire, and better for the environment. We commend this alternative to you.