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Spending Review 2010- Changes to Waste PFI Programme

Supporting Analysis

6 December 2010

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Department for Environment
Food and Rural Affairs

SPENDING REVIEW 2010 CHANGES TO WASTE PFI PROGRAMME – SUPPORTING ANALYSIS

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1 Introduction

1.1 Spending Review Decision

As part of the Spending Review process Defra concluded that seven waste infrastructure projects should not receive the PFI credits which had provisionally been allocated to them, on the basis that, on reasonable assumptions, these projects would no longer be needed in order to meet the 2020 landfill diversion targets set by the European Union.

The full announcement, and details of the projects affected, are at *http://ww2.defra.gov.uk/news/2010/10/20/changes-to-pfi-programme/*.

1.2 Publication of analyses

In announcing these decisions, the department undertook to publish further details of the analysis it had undertaken and the criteria that it had used to prioritise the projects with provisional allocations of PFI credits. This paper meets that commitment and addresses the two main areas of analysis:

Section A: Analysis of likely waste arisings and treatment capacity in 2020
A description of how the department assessed the residual waste diversion capacity likely to be required from the waste PFI programme in order to achieve the 2020 landfill directive target, set out in sections 2-4 below. This description draws on source documents and exchanges with Ministers at the time of the relevant decisions; subsequent modifications to original documents have been noted.

Section B: Evaluation model for ranking projects for SR2010
A copy of the document endorsed by Ministers on how the uncommitted PFI projects should be prioritised to meet that requirement, set out in Section 5 below. Subsequent modifications to the original document have been identified in footnotes.

1.3 Background

1.3.1 The EU Landfill Directive set targets for each member state to reduce the amount of Biodegradable Municipal Waste (BMW) sent to landfill. The targets are to reduce the amount of BMW sent to landfill compared to the total produced in 1995 to: 75% by 2010 (21.7mt), 50% by 2013 (14.5mt) and 35% by 2020 (10.2mt). In 2009, England sent 14.6mt of biodegradable waste to landfill, well below the 21.7mt target for 2010. However, there are some key factors to be taken into account in the outlook going forward, including the effect of the recent recession in lowering waste arisings (and hence waste going to landfill) and the change in the definition of municipal waste[1].

[1] The new interpretation of municipal waste is based on the classification of waste using the List of Wastes Decision (or the European Waste Catalogue). Chapter 20 of this catalogue can broadly be considered to equate to municipal waste – the chapter is headed *"Municipal Wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions"*. This means that a significant proportion of commercial waste is now included in the definition of municipal waste. This has affected both the 2020 target and the current UK position against it; and requires additional modelling to cover this proportion of C&I waste.

1.3.2 The Waste Infrastructure Development Programme (WIDP) in Defra supports the procurement of waste treatment infrastructure by Local Authorities; its objective is to ensure sufficient capacity is delivered to meet the landfill diversion targets set by the EU Landfill Directive. The programme conducts ongoing assessments of the total quantity of landfill diversion capacity that will be operational in 2020 to provide sufficient confidence that the targets will be met. In light of the Spending Review, Defra conducted a further detailed and in-depth assessment of Private Finance Initiative (PFI) grants for local government funded waste treatment infrastructure.

1.3.3 The assessment included:

- forecasting demand for waste infrastructure in 2020;
- planned diversion capacity expected to be operational in 2020;
- recognition of the UK's legal obligations under the EU Landfill Directive and risk; and
- an assessment of the appropriate level of assurance for the department in aiming to meet the Directive targets.

SECTION A: ANALYSIS OF LIKELY WASTE ARISINGS AND TREATMENT CAPACITY ON 2020

2 Forecasting demand for waste infrastructure in 2020

2.0.1 The analysis followed three stages:

- forecasting total waste arisings in 2020;
- making assumptions about the likely recycling rate in order to determine the amount of residual waste[2] generated; and
- assessing the biodegradability content of the residual waste as the Landfill Directive targets apply only to biodegradable municipal waste to landfill.

2.0.2 The various stages of the analysis are discussed below.

2.1 Total waste arisings

2.1.1 The key uncertainty in forecasting total waste arisings is outlined as follows:

2.1.2 Household waste: Since 2003, household waste arisings have fluctuated around a flat/downward overall trend indicating potentially some decoupling of waste arisings from economic growth. The recent recession has complicated the picture further, making it difficult to determine the extent to which the fall in waste arisings is due to temporary recession effects and the extent to which it has been driven by genuine decoupling between the economy and waste arising in the years preceding 2008. To

[2] Residual waste is the term used for waste that remains after recycling or composting material has been removed from the waste stream

account for the uncertainty in the outlook, household waste is forecast using two methodologies[3].

- Time series forecasting techniques: Growth projections for household waste were developed based on an in-house autoregressive integrated moving average (ARIMA) model. This generated forecasts based on past events and trends (and led to the development of a central scenario 1 which is explained in section 2.4 below). It captured the recent moderating trend, and forecast a modest bounce back in waste arisings over the next few years.
- Input-output modelling: Growth projections were developed using an input-output model commissioned by Defra. The model is primarily driven by consumption expenditure, and predicts a more significant bounce back in waste arisings compared to the ARIMA model.

2.1.3 Commercial and Industrial (C&I) waste: Similar to household waste, there is uncertainty in the outlook for C&I waste, reinforced by limited data on which to base any analysis. Two methodologies were used to forecast (C&I) waste.[4]

- Given the limited data available, a 2009 ADAS study was used to forecast C&I waste arisings.[5] The study uses the most recent C&I arisings data for North West England as the basis to produce a snapshot of similar arisings in other English regions[6]. The results of the study are extrapolated based on business population projections to provide 2020 estimates for England (scenario 1, the central scenario).
- An alternative forecast was produced using the Regional Economy Environment Input Output (REEIO) model. The model forecasts waste arisings largely based on the level of economic activity – it broadly assumes that greater economic output leads to greater waste – and produces a higher estimate compared to the other methodology.

[3] Household arisings baseline data is derived from Waste Data Flow figures provided by local authorities (http://defraweb/evidence/statistics/environment/wastats/wdf.htm).

[4] C&I baseline figures come from the Waste Statistics Regulation return for 2008 made to the European Commission (http://www.defra.gov.uk/evidence/statistics/environment/waste/wreuwastestats.htm). These figures are less reliable compared to the data on household waste –the last national survey for C&I was completed in 2002/03 and since then there have only been regional studies.

[5] ADAS Study into Commercial and Industrial Waste Arisings (2009). This study uses the most recent C&I arisings data from the NW 2007 study and uses them to produce a snapshot of similar arisings in other English regions *http://www.eera.gov.uk/publications-and-resources/studies/topic-based-studies/waste-studies/national-study-into-commercial-and-industrial-waste-arisings/*

[6] The estimates are primarily based on waste arisings per employee by sector and number of companies in each industrial classification (SIC) for each region. This study makes the assumption that the results from North West England can be applied to other regions (including the East) assuming that companies in the same sectors and in the same employee size band produce similar quantities and types of waste. The ADAS methodology however is adjusted to account for different regional employment forecasts and to allow for improvements in waste efficiency over time.

2.2 Recycling rate

2.2.1 A household waste recycling rate of 50% was assumed for 2020 – the target set in the revised Waste Framework Directive (WFD). Internal modelling to evaluate the impact of the revised WFD indicates that, on a range of scenarios, England is likely to narrowly exceed the 50% target.[7] Given the inherent uncertainty in forecasting the likely recycling rate in 2020, and in the absence of a current stated policy goal to exceed the 50%, this rate was considered the most reasonable assumption to apply given its status as an EU target. A higher recycling rate would have meant less residual waste being produced in 2020, with the opposite being true for a lower recycling rate.

2.2.2 For C&I waste, a recycling rate of 60% in 2020 was considered a reasonable assumption. Data on this waste stream is limited, but previous analysis supports this assumption[8]. A regional survey of C&I waste in the North West[9] reported a recycling rate of 60% in 2009. Applying. for example, a lower recycling rate for the proportion of C&I waste now classified as municipal would have meant more residual waste in 2020. However, currently there is no evidence available on any differential recycling rate between the proportions of C&I waste that is municipal, and that which is not.

2.3 Biodegradable composition of municipal waste

2.3.1 The landfill diversion target only applies to the biodegradable proportion of residual municipal waste, and an assessment of the likely biodegradable content of this waste in 2020 is necessary in order to calculate compliance with the target. The analysis assumed a biodegradable content of 68% for all municipal waste. This percentage is supported by existing research.[10] It is considered the best available proxy for all municipal waste, including the proportion of C&I waste now classified as municipal waste[11].

2.4 Waste scenarios

2.4.1 The analysis assumes recycling rates of 50% and 60% for municipal and C&I waste, respectively, and a biodegradability content of 68% for all waste classified as municipal waste. However, in the face of the uncertainties discussed above – on both current and future waste arisings – four scenarios were developed to estimate

[7] achieving a recycling rate of between 51%-56%

[8] Analysis conducted to support the assessment of the feasibility of the landfill bans research on current management of C&I waste, and the modelled impact of landfill tax indicate a recycling rate of approximately 60% in 2020 (http://www.wrap.org.uk/wrap_corporate/publications/landfillban.html).

[9] North West of England Commercial and Industrial Waste Survey 2009 for the Environment Agency conducted by Urban Mines

[10] "Municipal Waste Composition – Review of Municipal Waste Component Analyses" http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=15133

[11] For example, 2007 analysis of the biodegradable content of mixed C&I waste landfilled in Wales conducted indicated that it was similar to that of current municipal waste arisings (*http://www.environment-agency.gov.uk/research/library/publications/33977.aspx*).

possible outcomes for residual BMW arisings in 2020. The four scenarios were developed using the methodology described in section 2.1, with sensitivities applied to the growth rates.

2.4.2 Scenario 1: Assumptions based directly on forecasts from the ARIMA and ADAS economic models[12]
Scenario 2: Arisings in 2020 exceed scenario 1 by 5% for household waste and 10% for C&I municipal waste
Scenario 3: Arisings in 2020 exceed scenario 1 by 10% for household waste and 20% for C&I municipal waste.
Scenario 4: Arisings in 2020 exceed scenario 1 by 12% for household waste and 30% for C&I municipal waste.

2.4.3 Scenario 1 represents the central case, and is considered the most likely to occur. However, alternative higher scenarios are considered in order to fully assess the risk of missing the Landfill Directive target in 2020.

Table 1: Summary of modelling in millions of tonnes per annum

Scenario	Total Household waste	C&I waste [13]under MSW definition	Total MSW	After Recycling	After BMW adjustment	Capacity required after Landfill Allowance
1	25.6	26.0	51.5	23.2	15.8	5.6
2	26.9	28.5	55.4	24.8	16.9	6.7
3	28.1	31.1	59.3	26.5	18.0	7.9
4	28.6	33.7	62.4	27.8	18.9	8.8

Source: Defra internal calculations
MSW Municipal Solid Waste
BMW Biodegradable Municipal Waste

2.4.4 The four scenarios are based on four different estimates of the likely municipal waste arisings in 2020. Applying the appropriate recycling rate (50% for household waste and 60% for C&I waste) provides an estimate of the amount of residual waste in 2020. Applying the assumption of 68% biodegradable content to residual waste provides estimates of the total residual biodegradable municipal waste. The final column estimates the amount of infrastructure capacity required to redirect any waste over and above the maximum amount allowed to be landfilled (i.e. 10.2mt) – between 5.6mt to 8.8mt.

[12] These models were preferred based on their reflection of the relative impacts between temporary recession effects driving waste arisings down and the recent trend in decoupling between waste arisings and economic activity.
[13] The EU defines Municipal waste as "…waste from households, as well as other waste, which, because of its nature or composition, is similar to waste from households." (Council Directive *1999/31/EC* of 26 April 1999 on the landfill of waste, Article 2) It is only the proportion of C&I waste similar to household waste which is included in the table.

2.5 Assessment of likelihood of scenarios occurring

2.5.1 The probabilities presented below are based on expert judgement reflecting the assessment of the forecasts. However, the uncertainties around assigning such indicative probabilities should be noted, given the current lack of stable long term trends and very wide variations seen in the results of different modelling exercises.

Table 2: Likelihood of residual waste arising scenarios

Scenario	**1**	**2**	**3**	**4**
Indicative probability	60%	30%	9%	1%
Cumulative probability	60%	90%	99%	100%

2.5.2 Scenario 1 is the central case because it is considered the most likely scenario to occur, and the probability assigned to it reflects the likelihood of it or any lower waste growth scenario, occurring. We adopted a range of methodologies to forecast future waste arisings and the likely extent of decoupling between economic activity and waste arisings. The preferred modelling approach underpinning the central scenario was one that gave greater weight to the recent trend towards decoupling, and hence forecast lower waste arisings to 2020. No scenario therefore has been presented of waste growth being lower than the central projection.

2.5.3 There is considerable uncertainty around the projections for waste growth, particularly on the C&I element, leading to the development of the alternative scenarios. This uncertainty leads to an assessment that there is a significant probability of the level of waste arisings in 2020 being greater than the central case scenario up to and including the level presented in Scenario 2.

2.5.4 Scenario 3 is equivalent to waste growth rates last seen in the late 1990s and early part of the 2000s. These growth rates are at odds with the observed trend over the last few years. In particular, C&I waste arisings have proved very responsive to changes in economic conditions, which remain uncertain following the recent recession. The indicative probability is based on the fact that while this scenario is considered unlikely, it cannot be dismissed entirely. Scenario 4 would require even higher growth rates, and is considered highly unlikely (especially with the increasing focus on waste minimisation) and has been given a nominal indicative probability.

3 Supply of capacity

3.0.1 The capacity that will be operational in 2020 includes:

- facilities that have already been procured by Local Authorities (including 21 PFI projects);

- facilities currently being procured by local authorities (including 18 PFI projects); and
- merchant facilities that will come on line by 2020.

3.0.2 For all categories, the nominal tonnage figures have to be discounted by an appropriate factor to take account of the risk that planned facilities might not actually be operational in 2020. The capacity forecast, therefore, entailed an assessment of the delivery risk to infrastructure that has been or is being procured by local authorities and merchant facilities. The risk adjusted capacity forecast was based on assessing the delivery likelihood both at project level and at programme level.

3.1 Facilities that have already been procured

3.1.1 These include the 21 PFI projects and all Public Private Partnership (PPP) projects that have been procured to date. Despite the contracts having been signed between the local authorities and contractors, some of the projects are not yet operational either because they are in the construction phase or awaiting a satisfactory planning consent. Therefore the total tonnage figures require risk adjustment.

3.2 Facilities currently being procured by Local Authorities

3.2.1 These include the 18 PFI projects under consideration for this exercise.

3.2.2 PFI Project Level Risk: An internal assessment of project risk was undertaken, which identified the following factors as indicating a higher level of delivery risk:

- an abnormally long project gestation;
- exceptional commercial challenges; and
- joint working between two or more local authorities.

3.2.3 Projects were awarded one point for each risk indicator. The projects were scored out of three, and converted to a RAG status (see table 3).

Table 3: Project level risk assessment for currently procured facilities

No of High Risk Indicators	RAG Status	Risk Factor
0	Green	90%
1	Amber Green	80%
2	Amber Red	70%
3	Red	60%

Source: Internal Defra analysis

3.2.4 A percentage was attached to each overall RAG rating based again on internal assessment, and this was then applied to the nominal capacity tonnage for each facility included within the capacity forecast.

3.2.5 PFI Programme level risk assessment: The model applies an additional reduction of likely capacity at programme level to reflect delivery risks that affect most or all projects, such as changes to planning policy, public opposition to waste treatment facilities, and recognition that typically a plant's actual throughput is less than its headline capacity.

3.2.6 Historic evidence suggests the probability of success is approximately 2 out of 3 for achieving financial close and for securing satisfactory planning consent. However WIDP was established to reduce the risk of procurement failing to deliver. To date, there has been one failure in procurement under the WIDP Programme. Therefore a central assumption that two more projects could fail in the procurement phase was deemed reasonable (in the context of spending review financial pressures). Combining a planning success rate of approximately 2 in 3 with a procurement success rate of 18 out of 21 gives an overall success rate of 57%, implying a programme risk factor in the region of 45%.

3.2.7 Investment Replacement effect: It is Defra's assessment that there is potential for some capacity to be delivered by local authorities not receiving the provisional allocation of PFI credits. It was estimated that 5% of the expected capacity arising from those projects will still be delivered in time to contribute to the 2020 target. This was based on the rate of landfill tax rising to £80 per tonne by 2014/15 and assuming that national waste policy remains in favour of diverting waste from landfill.

3.2.8 The key uncertainties going forward which are likely to limit the extent of any investment replacement effect and provide rationale for the 5% are as follows:

- *Affordability Gap.* The PFI grant typically covers around 30% of charges payable to the PFI contractor by the local authority under the PFI contract. Without PFI credits, an affordability gap is unlikely to be filled for most cases, in the current economic environment.

- *Higher short-term cost of diverting waste from landfill.* Although the cost of landfilling waste is increasing, it is still less than the cost of diverting the waste from landfill in the near- to medium-term. Landfill currently costs in the region of £68 per tonne (including gate fees and the £48 tax) compared to gate fees for even the lowest cost technology which can be over £100 per tonne.

- *Uncertainties about long-terms costs. In the longer ter*m, there is uncertainty around the costs of landfill relative to various diversion options. For example, the cost of energy from waste (EfW) capacity is far from clear – due to the existence of major economies of scale, the underlying cost base is dependent on the size/capacity of plant. Planning constraints tend to reduce the size of plant, which

in turn raises the average gate fee. Finally, there are uncertainties around the cost and effectiveness of new technologies in delivering the required diversion.[14]

- *Need for long-term contracts*. As with most capital-intensive and long-lived infrastructure projects, long-term contracts with creditworthy providers of waste are essential to attract finance and investment into the sector. For example, without local authority anchor contracts, it is unlikely promoters of schemes are able to attract bank finance. Even with corporate-financed projects, long-term public sector contracts appear to be a significant factor to any substantial investment.

- *Transactor Knowledge.* The 5% assumption also reflects feedback from Defra transactors working directly with local authority project teams as to:

    - the appetite of elected members to push schemes through;
    - the proportion of total project cost represented by the PFI support, typically around 30%; and
    - the extent to which loss of the PFI credits is likely to exacerbate existing affordability pressures from the current spending review.

3.3 Merchant facilities that will come on line by 2020

3.3.1 Currently, operational merchant capacity in England is negligible – only one plant has been developed to the point of being operational.[15] However, there are many merchant projects in development, and therefore the capacity forecast includes an assessment of merchant capacity likely to be operational in 2020.

3.3.2 An internal assessment was conducted of over 70 potential merchant plants (identified on the basis of a review of internal records and some external sources). The plants were assessed to establish whether each had any or all of the three key components of commercial viability:

- planning consent;
- a secure source of waste; and
- finance for the capital investment required.

3.3.3 This assessment was then used to categorise projects into four groups depending on the level of risk attached to the delivery of individual facilities (see Table 4).

[14] For example, there are commercial parties actively marketing “new” technology to local authorities at relatively low gate fees. On closer inspection such solutions tend to be more expensive than initially stated and/or provide only a partial solution (in that the processes outputs are substantial and still require further treatment to avoid landfill).

[15] Lakeside which provides 0.2mtpa of BMW diversion capacity

Table 4: Project level risk assessment for merchant facilities

Status	RAG Status	Risk Factor
Operating	Green	100%
Planning Consent Given	Amber Green	70%
Planned	Amber Red	60%
Proposed	Red	20%

Source: Internal Defra analysis

3.3.4 A percentage was attached to each RAG rating based on internal assessment, and this was then applied to the nominal capacity tonnage for each merchant facility included within the capacity forecast.

3.3.5 A further programme level risk adjustment of 25% was estimated to reflect operational efficiency and other wider issues that affect all facilities.

3.4 Supply capacity in 2020

3.4.1 Taking into account both project level risk and overall programme risk, the forecast level of capacity in 2020 is as follows (see Table 5).

Table 5: Total BMW capacity in 2020 in millions of tonnes

Status of Plant	Other LA projects[16]	18 PFI projects currently being procured	Merchant facilities	Total (Mt)
Capacity in 2020	4.4	1.2	2.0	7.6

Source: Internal Defra analysis

4 Delivery of Landfill Directive Targets

4.0.1 Based on the estimated demand for and supply of capacity to divert waste from landfill in 2020, it is possible to project the degree to which avoided landfill will overshoot Directive targets depending on the number of projects which retain their provisional allocation of PFI credits (see Table 6).

4.0.2 The table below shows how different waste growth scenarios impact on the amount of BMW landfilled in 2020, relative to the EU ceiling of 10.16m. A positive number indicates that we are below the ceiling and complying with the Directive. Negative numbers indicate cases in which we would breach the ceiling.

[16] "Other LA Projects" includes all other Local Authority projects including projects in procurement without PFI Credits and signed projects.

Table 6: Amount of avoided landfill over and above the targets for a given option and scenario[17]

	Waste Scenario			
No of funded projects	**1**	**2**	**3**	**4**
0	0.84	-0.30	-1.44	-2.37
9	1.45	0.31	-0.83	-1.75
11	1.54	0.40	-0.74	-1.67
18	1.99	0.85	-0.29	-1.22

Source: Internal Defra analysis

4.0.3 Switching point analysis was conducted around the 45% programme risk assumption. Specifically, the maximum programme risk assumption which would ensure that a given number of projects would be sufficient to meet the landfill target, given the four waste growth scenarios (see Table 7).

Table 7: Switching points on programme risk

	Waste Scenario	
No of funded projects	**2**	**3**
0	Miss target*	Miss target
18	83%	32%
*"Meet Target" means that the EU Target would be met for any value of programme risk between 0 and 100%.		
*"Miss Target" means that the EU Target would be missed for any value of programme risk between 0 and 100%.		

Source: Internal Defra analysis

4.0.4 For example, should the level of residual waste scenario be close to scenario 2, if we continued to fund 18 projects, programme risk would have to be as high as 83% before there would be insufficient capacity to meet the landfill directive target.

4.0.5 We have concluded that the best balance between being precautionary and minimising cost is to plan on the assumption that the MSW arising in 2020 lies somewhere between 55.4mt (Scenario 2) and 59.3mt (Scenario 3). Going beyond this to select the exact tonnage to determine the number of projects required can only ever be based on judgement on what is reasonable in the circumstances. In response, two sub-scenarios were developed (see table 8) – between scenarios 2 and 3.

[17] These figures are different to the table in the original Ministerial submission as that excluded a project which at the time was assumed to be outside the scope of the exercise.

Table 8: Amount of avoided landfill over and above the targets for scenarios incl. between 2 and 3

No of funded projects	Waste Scenario					
	1	2	2.33	2.5	3	4
	mtpa	**mtpa**	**mtpa**	**mtpa**	**mtpa**	**mtpa**
0	0.84	-0.3	-0.68	-0.87	-1.44	-2.37
5	1.16	0.02	-0.55	-0.36	-1.12	-2.05
11	1.54	0.4	0.02	-0.17	-0.74	-1.67
14	1.73	0.59	0.21	0.02	-0.55	-1.47
18	1.99	0.85	0.47	0.28	-0.29	-1.22

4.0.6 It was concluded that, on reasonable assumptions, the provisional allocation of PFI credits to seven projects will no longer be needed in order to meet the 2020 landfill diversion targets set by the European Union. This will reduce estimated central government PFI expenditure by £3 million per annum in 2014-15 rising to £26 million per annum from 2017/18 onwards.

SECTION B: EVALUATION METHODOLOGY FOR RANKING PROJECTS

This Section comprises the evaluation document as it was first submitted to Ministers on 14 October 2010. Subsequent changes to the facts that were notified to Ministers and taken into account in the final decision making have been set out in footnotes.

Methodology for Ranking projects

1 Introduction

This note records the approach that will be taken in relation to ranking the PFI projects in the Waste Infrastructure Delivery (WIDP) in order of priority. The purpose of the exercise is to identify which projects WIDP would recommend should retain their provisional PFI Credit allocations once Defra's Waste Programme has taken a view on the financial support it is prepared to commit to PFI projects.
The outcome will be a list ranking all relevant projects in order of priority.
The exercise is based on the assumption that the decision on each project will be binary i.e. to re-confirm the provisional allocation of credits or to withdraw that allocation. This exercise does not examine the case for reducing the PFI credit allocated to any or all of the projects

2 Process and Approvals

The methodology was developed WIDP between 15 September and 27 September 2010 and subsequently approved by Waste Policy on 28 September. The paper also has been reviewed by Defra Legal.
The approved methodology will be applied to projects based on the relevant data as at the close of business on 6 October 2010.

3 Background

The Waste Programme is currently considering how much BMW diversion capacity it should direct WIDP to aim to deliver by 2020. This review is being undertaken by the Waste Programme in the context of:

a) the new interpretation of the definition of MSW,
b) new evidence in relation to the amount of MSW begin landfilled in England
c) recent setbacks in relation to planning applications on a number of projects; and
d) the negotiation of the Departmental Expenditure Limit (DEL) with HM Treasury for the years 20011/12 to 2014/15 as part of the Spending Review 2010

The Waste Programme's decision making process for this issue is outside the scope of this paper.

WIDP has not in the past restricted its delivery support to LAs which receive financial support from Defra in the form of PFI Credits. This position is unchanged. Hence any decision on the withdrawal of provisional PFI Credit allocations from a project will not automatically imply a withdrawal of Transactor and Commercial Team support for that project.

4 Scope of Exercise

The projects under consideration are the 17[18] projects falling within Categories (c) and (d) as defined in the paper prepared for the LAP meeting on 15 September. Based on advice received from Defra Legal the 17 projects have been treated a single pool of projects with no account taken of which category the project fell into for the purposes of the LAP paper

The full list of projects (in alphabetical order) is attached at Appendix A.

5 The Criteria Applied

The criteria to apply to the ranking exercise were discussed within WIDP and agreed on 27 September 2010. The three areas felt to be of relevance to the ranking were:

a) the deliverability of the project (and hence the benefits); and
b) the benefit delivered by the project relative to the funding provided by Defra;
c) the timing of the benefits

6 The Relative Weighting Applied to Each Criterion

It was considered that criterion (a) was the most important as the benefits of each project would not materialise at all if the project never becomes operational. The next most important criterion was considered to be (b) given the importance of Defra spending its budget effectively in the current financial environment. The third criteria i.e. (c) was felt to be relevant but much less significant given the unpredictability of timing of operational commencement on any one project. Hence it was decided to apply the following weightings to the score for each of the criteria.

[18] The document is presented as it was first submitted to Ministers on 14 October 2010. However subsequently the scope of the exercise was expanded to include all projects in procurement with provisional PFI Credit allocations. This brought the Wakefield project within the scope increasing the total to 18 projects.

Criterion	Weighting
Deliverability of the project	50%
Benefit delivered by the project relative to the funding	40%
Timing of the benefits	10%

7 Marking Projects Against Each Criterion

The marking for all projects and for all criteria will all be completed on 7 October based on the relevant data for the project at the close of business on 6 October day. Marks will not be adjusted for any change to any data after the cut off point.

The specific marking approach for each criterion is set out below:

a) the deliverability of the project

The deliverability of the project is considered to be a function of how advanced the procurement process is and the status of the project in relation to planning.

Each project will be given a mark out of 5 in relation to the state of progress of the procurement.

Status	Mark (Out of 5)
Post appointment of Preferred Bidder (PB)	5
Post close of dialogue but pre PB appointment	4
In dialogue with the final 2 bidders	3
In dialogue with short list of bidders	2
In dialogue with a long list of bidders	1
Pre opening of competitive dialogue phase	0

The project will also be given a mark out of 5 for planning deliverability on the following basis:

Status	Mark (Out of 5)
The Project is at the PB stage and the bidder has already has a satisfactory planning consent on the proposed site.	5
Authority has already got planning consent for the relevant technology on an acceptable site being offered to bidders.	4
The project is down to two bidders and at least one bidder has a satisfactory planning consent.	3
Project has no bidders with planning consent but is offering an acceptable site to bidders suitable for all of the solution.	2
Project has no bidders with planning consent but is offering an acceptable site to bidders for part of the solution	1
Project has no bidders with planning consents and is not offering any site to the bidders.	0

The two marks will be combined to give a mark out of 10.

b) Benefits Delivered Relative to Funding

Projects will be marked against this criterion according to the following ratio i.e.

Project mark = a/b

where:

a = the tonnage of BMW forecast to be diverted from landfill by the project's residual waste treatment facilities in 2020 (in kilotonnes rounded to the nearest kilotonne).

b = the notional (PFI) credit provisionally allocated to the project (in £m rounded to the nearest £0.1m).
The relevant technological solution will be determined as follows:

1. For projects at the Preferred Bidder (PB) stage the solution proposed by the PB is the relevant technology solution.
2. For projects that have received sufficiently detailed solutions the solution proposed by the bidder offering the lowest level of diversion of BMW is the relevant technology solution
3. For projects that have not yet received sufficiently detailed solutions the OBC reference project defines the relevant technology solution.

This approach is designed to ensure we use the most up to date figures for BMW diverted without counting on capacity that may not be delivered if a particular bidder is not selected as preferred bidder.
The tonnage calculations will be based on the standard assumption that input MSW comprises 68% BMW and 32% non BMW and other information reported by the project to WIDP. Projects will be asked to identify the source of all data so that there is a full audit trail from bid or OBC documentation to the inputs to the calculation. Once performed the calculation will be sent to the relevant Authority so that it can confirm that it is correct.
The figure for the notional PFI credit provisionally allocated to each project will be taken as the amount provisionally allocated at the OBC stage plus any further allocations the project has identified as critical in order for the project to progress to financial close. This will apply whether or not the additional credit allocation has completed the approval process[19].
c) the timing of the benefits

The projects will be marked on the basis of the number of months remaining until the expected operational commencement date as stated in the current project plan. The shorter the period the higher the project will be ranked, other things being equal. Hence for this criterion the lowest number in the marking will be given the highest score.

8 Converting Marks into Scores

The same approach for converting marks into scores will be used for each of the three criteria. The best mark will be awarded a score of 100 and the worst mark will be awarded a score of 0. Then intermediate marks between the best and the worst will be awarded scores based on interpolation. Thus, mathematically the score for an intermediate mark X will be calculated as:

100 x a/b

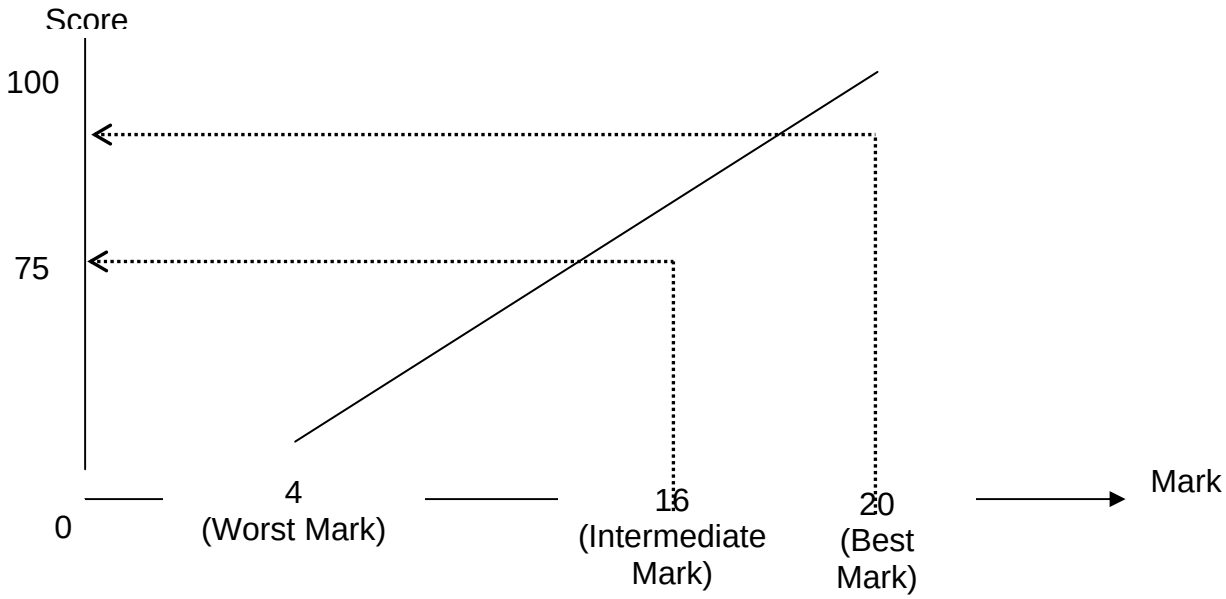
where

a = Intermediate mark less the lowest mark

b = Highest mark less the lowest mark

[19] The document is presented as it was first submitted to Ministers on 14 October 2010. However subsequently the approach was amended so that further allocation of PFI Credits were not taken into account if they had not completed the approval process before close of business 6 October 2010.

For example if the worst mark was 4 and the best mark was 20, an intermediate mark of 16 would be scored as 75 (i.e. 100 x (16-4)/(20-4)). This is illustrated in the diagram below (not to scale).



9 Weighting the Scores

The unweighted score for each project will be multiplied by the relevant weighting for that criterion to give a weighted score for each project for each criterion.

10 The Final Ranking

The final step will be for the weighed scores for each criterion to be added up to arrive at the total weighted score for each project. The total weighted scores will then be used to determine the ranking of the projects from 1 to 17[20].

[20] The document is presented as it was first submitted to Ministers on 14 October 2010. However subsequently the scope of the exercise was expanded to include all projects in procurement with provisional PFI Credit allocations. This brought the Wakefield project within the scope increasing the total to 18 projects.

Appendix A[21]

Ref No.	Project Name	Ref No.	Project Name
1.	Barnsley, Doncaster and Rotherham	10.	Merseyside Waste Disposal Authority[1] and Halton
2.	Bradford and Calderdale	11.	Milton Keynes and Northamptonshire
3.	Cheshire West and Cheshire and Cheshire East.	12.	Norfolk
4.	Coventry, Solihull and Warwickshire ("Project Transform")	13.	North London Waste Authority[2]
5.	Essex and Southend-on-Sea	14.	North Yorkshire and City of York
6.	Gloucestershire	15.	South London Waste Partnership (consisting of the LB's of Croydon, Kingston, Merton and Sutton)
7.	Hertfordshire	16.	South Tyne and Wear Partnership (consisting of Gateshead, South Tyneside and Sunderland)
8.	Leeds	17.	South West Devon Waste Partnership (consisting of Devon, Plymouth and Torbay).
9.	Leicestershire		

Notes

1. MWDA is responsible for the disposal of the Local Authority collected NMSW waste arising in Knowsley, Liverpool, Sefton, St Helens and Wirral.
2. NLWA is responsible for disposing of the Local Authority collected MSW waste arising in the London Boroughs of Barnet, Camden, Enfield, Hackney, Haringey, Islington, Waltham Forest

[21] The document is presented as it was first submitted to Ministers on 14 October 2010. However subsequently the scope of the exercise was expanded to include all projects in procurement with provisional PFI Credit allocations. This brought the Wakefield project within the scope increasing the total to 18 projects. Projects are listed in alphabetical order.