

Appendix R1

Waste Services Contract Shadow Tariff Models

North London Waste Authority Shadow Tariff Waste PFI Model

Waste Services Contract Reference Case Model

Prepared by

Ernst & Young

Company:

Project:

EY PFI Generic Model

Model:

09.11.24_ NLWA_WS_FINAL.

Version:


FINAL REFERENCE CASE PFI

Contact:

Print date:

2 Dec 2009

Notes

Critical checks	✓	Shortcut keys	
Other checks		(Press Escape key to cancel any process or exit from any dialog box)	Ctrl + Shift + R Print Reports
			Ctrl + Shift + P All sheet protection
			Ctrl + K Funding calculation
			Ctrl + Alt + F9 Calculate model

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- the Model may not be suitable for purposes other than the specific purposes for which it was designed, and the interests of third parties may not have been anticipated;
- the Model was not intended for use by third parties and may not be designed so that it can be readily operated in a correct manner by such parties;
- the Model may be a development version and may not be complete or, in the event that development of the Model has concluded, material events may have occurred since completion, which are not reflected in the Model;
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Accordingly, third party recipients of this Model use it entirely at their own risk and, in the absence of express written consent, no responsibility is taken or accepted for any losses which may result there from, including direct or indirect consequences of computer viruses.

The financial projections do not constitute a profit forecast, but illustrate the possible results of the project company if the assumptions set out in the Data Book were to be made correct. The project company has no previous trading history. The illustrative financial projections may be materially affected by changes in economic or other circumstances, or when the assumptions upon which they are based prove in event to have been incorrect.

In the event any liability attaches to Ernst & Young LLP arising out of or in connection with the Model our liability in respect of breach of contract or breach of duty or fault or negligence or otherwise shall be limited in accordance with the terms of our engagement with North London Waste Authority.

Figure 1: Waste Services Contract Reference Case Shadow Tariff Model – Output Sheet

EY PFI Generic Model			Sensitivity Run? FALSE		Print date: 30-Nov-09		
Filename: 09.11.24_NLWA_WS_FINAL			Case in use		OBC WS Model		
Key Project Dates							
Financial Close		01-Oct-12					
Construction Start Date		01-Oct-12					
Operational Start Date		01-Apr-16					
Concession Length (years)		26					
Concession End		31-Mar-42					
Cost to Public Sector							
Unitary Payment p.a. - real £'000s		64,336					
Add VAT £'000s		11,259					
Gross Unitary charge £'000s		75,595					
Portion of Unitary Payment indexed to inflation		50.0 %					
Bullet payment £'000s		-					
Date		31-Mar-42					
NPV of Unitary Payments (net of VAT):							
NPV Base date		01-Jul-07					
NPV at Real Discount rate 3.5%		1,093,286					
NPV at Real Discount rate 3.5% + inflation		663,196					
Equivalent Annual Cost (real) - £'000s		62,546					
Key Macroeconomic Assumptions							
UC & TPI inflation		2.5 %					
LIBOR		4.6 %					
Corporation Tax		28.0 %					
Rates of Return							
		Nominal		Real			
Project IRR, pre-tax		11.5 %		8.8 %			
Project IRR, post-tax		11.1 %		8.4 %			
Equity return - dividends		22.3 %		0.0 %			
Blended pre-tax shareholders IRR (Equity and sub-debt)		14.00 %		9.9 %			
Required		14.0 %					
Blended post-tax shareholders IRR (Equity and sub-debt)		9.9 %		7.3 %			
Sources and uses of funds during construction period							
Sources		£'000		% of total			
Bond		-		0.0 %			
Senior Debt Tranche A		276,430		79.73 %			
Senior Debt Tranche B		-		0.0 %			
Mezzanine Debt		-		0.0 %			
Debt sub-total		276,430		79.7 %			
Sub Debt		-		0.0 %			
Equity		50		0.01 %			
Equity Bridge							
- Funding Equity		-		0.0 %			
- Funding Sub Debt		70,228		20.26 %			
Equity sub-total		70,278		20.3 %			
Total		346,708		100.0 %			
Uses		£'000		%			
Capital costs paid		264,357		76.2 %			
Development costs		28,189		8.1 %			
Hard FM		-		0.0 %			
Soft FM		-		0.0 %			
Life-cycle Maintenance		-		0.0 %			
SPV Costs		4,691		1.4 %			
Capital contribution / Negative Operating revenue/Deposit interest		(24,199)		(7.0%)			
VAT		3,046		0.9 %			
Working Capital (unpaid Capex, development costs & VAT)		17,724		5.1 %			
Reserve accounts		14,438		4.2 %			
Interest payments		17,130		4.9 %			
Financing Charges		21,333		6.2 %			
Total		346,708		100.0 %			
Checks and controls							
Critical checks		✓		Other checks		✓	
Source & Aps Balances		TRUE		Gearing OK?		TRUE	
Balance Sheet Balances?		TRUE		Sub debt injection within ceiling		TRUE	
Tax Reconciliation		TRUE		Sub debt repaid in concession?		TRUE	
Debt amortisation period valid		TRUE		MRA		TRUE	
Funding calculation finished?		TRUE		DSRA fully funded?		TRUE	
Balance Sheet unwinds?		TRUE		Deferred Tax unwinds?		TRUE	
Consistency of outputs		TRUE		Debt term OK?		TRUE	
Other key model info							
Overdraft Check		No Overdraft					
Sculpting of closing dividends'		Acceptable					
Accounting Option Selected?		1. Fixed Asset Accounting					
Tax Option Selected?		1. Capital Allowance/Fixed Asset a/c					
Funding terms							
	Arr Fee (bps)	Com Fee (bps)	Margin (bps)	Term (yrs)	Tail (yrs)		
Bond	n/a	n/a	n/a	n/a	n/a	n/a	
Senior debt Tranche A	250 bps	138 bps	296 bps	23.51	2.50	2.50	
Senior debt Tranche B	n/a	n/a	n/a	n/a	n/a	n/a	
Mezzanine	n/a	n/a	n/a	n/a	n/a	n/a	
Equity Bridge	250 bps	100 bps	200 bps	n/a	n/a	n/a	
Sub debt coupon	0 bps	0 bps	1251 bps	26.0	-	-	
Debt Coverage Ratios (during full operations)							
	Lock up	Target	Average	Min			
Debt service cover (DSCR)	1.150	1.250	1.388	1.250			
Forward looking DSCR	1.150	n/a	1.415	1.250			
Loan life cover (LLCR)	1.200	n/a	1.608	1.407			
Project life cover (PLCR)	n/a	n/a	2.052	1.466			
Gearing ratio and weighted average cost of capital							
Actual Gearing (including rolled up interest)			79.7 %				
Pre tax WACC			154.0 %				

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North London Waste Authority Shadow Tariff Waste PFI Model

Waste Services Shadow Tariff Model for PFI Credit Calculation

Prepared by

Ernst & Young

Company:

Project:

EY PFI Generic Model

Model:

09.11.24_ NLWA_WS_PFISTM FINAL.

Version:


FINAL REFERENCE CASE PFI

Contact:

Print date:

2 Dec 2009

Notes

Critical checks	✓	Shortcut keys		
Other checks		(Press Escape key	Ctrl + Shift + R	Print Reports
		to cancel any process	Ctrl + Shift + P	All sheet protection
		or exit from any dialog box)	Ctrl + K	Funding calculation
			Ctrl + Alt + F9	Calculate model

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Figure 3: Waste Services Contract Shadow Tariff Model for PFI Credit Calculation – Output Sheet

EY PFI Generic Model			Sensitivity Run? FALSE		Print date: 30-Nov-09	
Filename: 09.11.24_NLWA_WS_PFI5TM FINAL			Case in use		OBC PFI Model WS	
Key Project Dates						
Financial Close			01-Oct-12			
Construction Start Date			01-Oct-12			
Operational Start Date			01-Apr-16			
Concession Length (years)			26			
Concession End			31-Mar-42			
Cost to Public Sector						
Unitary Payment p.a. - real £'000s			58,953			
Add VAT £'000s			10,317			
Gross Unitary charge £'000s			69,270			
Portion of Unitary Payment indexed to inflation			55.0 %			
Bullet payment £'000s			-			
Date			31-Mar-42			
NPV of Unitary Payments (net of VAT):						
NPV Base date			01-Jul-07			
NPV at Real Discount rate 3.5%			1,023,948			
NPV at Real Discount rate 3.5% + inflation			620,136			
Equivalent Annual Cost (real) - £'000s			58,579			
Key Macroeconomic Assumptions						
UC & TPI inflation			2.5 %			
LIBOR			5.5 %			
Corporation Tax			28.0 %			
Rates of Return						
	Nominal	Real				
Project IRR, pre-tax	11.3 %	8.6 %				
Project IRR, post-tax	10.3 %	7.6 %				
Equity return - dividends	325.9 %	0.0 %				
Blended pre-tax shareholders IRR (Equity and sub-debt)	17.23 %	14.9 %				
Required	14.0 %					
Blended post-tax shareholders IRR (Equity and sub-debt)	14.9 %	12.1 %				
Sources and uses of funds during construction period						
Sources	£'000	% of total	Uses	£'000	%	
Bond	-	0.0 %	Capital costs paid	228,527	79.9 %	
Senior Debt Tranche A	246,068	85.98 %	Development costs	26,589	9.3 %	
Senior Debt Tranche B	-	0.0 %	Hard FM	-	0.0 %	
Mezzanine Debt	-	0.0 %	Soft FM	-	0.0 %	
Debt sub-total	246,068	86.0 %	Life-cycle Maintenance	-	0.0 %	
Sub Debt	40,074	14.0 %	SPV Costs	4,691	1.6 %	
Equity	50	0.02 %	Capital contribution / Negative Operating revenue/Deposit interest	(22,448)	(7.8%)	
Equity Bridge			VAT	2,924	1.0 %	
- Funding Equity	-	0.0 %	Working Capital (unpaid Capex, development costs & VAT)	16,968	5.9 %	
- Funding Sub Debt	-	0.00 %	Reserve accounts	12,689	4.4 %	
Equity sub-total	40,124	14.0 %	Interest payments	10,236	3.6 %	
			Financing Charges	6,016	2.1 %	
Total	286,191	100.0 %	Total	286,191	100.0 %	

Checks and controls					
Critical checks			Other checks		
Source & Aps Balances	TRUE		Gearing OK?	TRUE	
Balance Sheet Balances?	TRUE		Sub debt injection within ceiling	TRUE	
Tax Reconciliation	TRUE		Sub debt repaid in concession?	TRUE	
Debt amortisation period valid	TRUE		MRA	TRUE	
Funding calculation finished?	TRUE		DSRA fully funded?	TRUE	
Balance Sheet unwinds?	TRUE		Deferred Tax unwinds?	TRUE	
Consistency of outputs	TRUE		Debt term OK?	TRUE	
			-		
Other key model info					
Overdraft Check	No Overdraft				
Sculpting of closing dividends	Acceptable				
Accounting Option Selected?	1. Fixed Asset Accounting				
Tax Option Selected?	1. Capital Allowance/Fixed Asset a/c				
Funding terms					
	Arr Fee (bps)	Com Fee (bps)	Margin (bps)	Term (yrs)	Tail (yrs)
Bond	n/a	n/a	n/a	n/a	n/a
Senior debt Tranche A	100 bps	50 bps	125 bps	23.51	2.50
Senior debt Tranche B	n/a	n/a	n/a	n/a	n/a
Mezzanine	n/a	n/a	n/a	n/a	n/a
Equity Bridge	n/a	n/a	n/a	n/a	n/a
Sub debt coupon	0 bps	0 bps	1251 bps	10.5	15.5
Debt Coverage Ratios (during full operations)					
	Lock up	Target	Average	Min	
Debt service cover (DSCR)	1.150	1.250	1.311	1.250	
Forward looking DSCR	1.150	n/a	1.340	1.250	
Loan life cover (LLCR)	1.200	n/a	1.525	1.356	
Project life cover (PLCR)	n/a	n/a	1.984	1.402	
Gearing ratio and weighted average cost of capital					
Actual Gearing (including rolled up interest)				85.0 %	
Pre tax WACC				8.4 %	

Checks and controls**Critical checks**

Source & Aps Balances	TRUE
Balance Sheet Balances?	TRUE
Tax Reconciliation	TRUE
Debt amortisation period valid	TRUE
Funding calculation finished?	TRUE
Balance Sheet unwinds?	TRUE
Consistency of outputs	TRUE

Other checks

Gearing OK?	TRUE
Sub debt injection within ceiling	TRUE
Sub debt repaid in concession?	TRUE
MRA	TRUE
DSRA fully funded?	TRUE
Deferred Tax unwinds?	TRUE
Debt term OK?	TRUE

Other key model info

Overdraft Check	No Overdraft
Sculpting of closing dividends	Acceptable
Accounting Option Selected?	1. Fixed Asset Accounting
Tax Option Selected?	1. Capital Allowance/Fixed Asset a/c

Funding terms

	Arr Fee (bps)	Com Fee (bps)	Margin (bps)	Term (yrs)	Tail (yrs)
Bond	n/a	n/a	n/a	n/a	n/a
Senior debt Tranche A	100 bps	50 bps	125 bps	23.51	2.50
Senior debt Tranche B	n/a	n/a	n/a	n/a	n/a
Mezzanine	n/a	n/a	n/a	n/a	n/a
Equity Bridge	n/a	n/a	n/a	n/a	n/a
Sub debt coupon	0 bps	0 bps	1251 bps	10.5	15.5

Debt Coverage Ratios (during full operations)

	Lock up	Target	Average	Min
Debt service cover (DSCR)	1.150	1.250	1.311	1.250
Forward looking DSCR	1.150	n/a	1.340	1.250
Loan life cover (LLCR)	1.200	n/a	1.525	1.356
Project life cover (PLCR)	n/a	n/a	1.984	1.402

Gearing ratio and weighted average cost of capital

Actual Gearing (including rolled up interest)	85.0 %
Pre tax WACC	8.4 %

Figure 4: Waste Services Contract Shadow Tariff Model for PFI Credit Calculation – Annual Sheet

EY PFI Generic Model		Sensitivity Run? FALSE	
Filename: 09.11.24_NLWA_WS_PFI5TM_FINAL		Critical checks	
		Case in use <input checked="" type="checkbox"/> Model <input checked="" type="checkbox"/>	
Annual dates	01-Oct-12	31-Mar-13	31-Mar-14
Year count	1	2	3
Phase	Construction	Construction	Construction
Balance Sheet Balances?	TRUE		
Timing & Flags			
Semi annual period for balance sheet	-	1	3
Construction period flag	1	1	1
Concession period flag	1	1	1
1. Annual projected cash flow statement			
index	(1,484,132)	TOTAL	
non index	(637,659)	2,688	
total	(2,121,792)		
30%			
Net Unitary charge receipts including RPI Swap	-	1,279	6,097
Third party income	-	207	520
Capital contributions	-	-	517
Operating Costs	-	-	552
Soft FM	-	-	36,850
Construction costs / change of law costs paid	-	-	(41,124)
Development costs	-	-	(42,354)
Life-cycle costs	-	-	(43,665)
SPP costs	-	-	(45,034)
Operating cash flow	-	-	(46,624)
Deposit interest received / Overdraft interest paid	-	-	(48,309)
VAT Paid to creditors/flowed from debtors	-	-	(50,063)
VAT (paid)/received (inland revenue)	-	-	(51,887)
Current tax paid	-	-	(53,784)
Net cash flow	-	-	(55,759)
Operating cash balance	-	-	(57,833)
Life-Cycle/Maintenance reserve transfers	-	-	(59,951)
Debt service reserve transfers	-	-	(62,178)
Cash flow available for senior debt service	-	-	(64,493)
Arrangement fees	-	-	(66,805)
Commitment fees	-	-	(69,417)
Wrapped bond premium	-	-	(72,033)
Amounts drawn down (see below for analysis)	-	-	(74,759)
DSR released to fund cash shortage for debt servicing	-	-	(77,598)
Senior debt Tranche A interest	-	-	(80,557)
Senior debt Tranche B interest	-	-	(83,641)
Bond interest	-	-	(86,856)
Senior debt Tranche A capital	-	-	(90,208)
Senior debt Tranche B capital	-	-	(93,703)
Bond capital	-	-	(97,348)
Cash flow available for mezzanine debt service	-	-	(101,140)
Mezzanine debt interest	-	-	(105,481)
Mezzanine debt capital	-	-	(109,805)
Cash flow available for sub debt & shareholders	-	-	(114,708)
Equity Bridge interest	-	-	(119,229)
Sub-debt deferred interest	-	-	(123,972)
Sub-debt interest	-	-	(128,849)
Sub-debt capital paid	-	-	(133,864)
Cash flow available for shareholders	-	-	(138,925)
Dividends paid	-	-	(144,030)
Redemption of share capital	-	-	(149,177)
Cash carried forward	-	-	(154,367)
Memo : Analysis of drawdowns			
Bond	-	-	-
Senior Debt - Tranche A	-	-	-
Senior Debt - Tranche B	-	-	-
Mezzanine Debt	-	-	-
Equity Bridge	-	-	-
Subordinated debt	-	-	-
Equity	-	-	-
Total	-	-	-

North London Waste Authority Shadow Tariff Waste PFI Model

Affordability Analysis – Summary Graph

Prepared by

Ernst & Young

Figure 5: Affordability Analysis – Summary Graph

