

Leeds City Council – Waste Solution Financial Appraisal of Options

Key Assumptions

The financial modelling of options has taken account of whole life costs for processing recycling and composting materials as well as residual treatment and has incorporated the following costs and assumptions.

Recyclate income:

Only paper/card, glass and metals are included in the model for recyclate income. This is due to the uncertain future markets for other outputs.

Disposal costs and third party income:

Capital costs, operating costs and third party income provided by Jacobs Babbie have been agreed by Leeds City Council and are based on waste growth modelling and capture rate modelling performed by Jacobs Babbie.

Landfill costs:

- Landfill gate fee costs provided by Jacobs Babbie
- Landfill taxes assumed to rise to and stay at £35 per tonne from 2011/12 onwards
- LATS are profiled according to the likely national supply capacity (which will influence the tradable price): £20 per tonne from 2008/09, then £150 from 2010/11 (as allowances fall sharply), £100 in 2013/14 (as localised initiatives start to increase capacity), then £20 from 2020/21 (as the targets level out)
- The financial appraisal has been set to allow sensitivities of two alternative LATS scenarios to the profiled one above: 'worst' case of £150 per tonne throughout the contract; 'best' case of £30 per tonne throughout the contract.

Economic Assumptions

- Annual RPI of 2.5% applied to all operating costs and third party income, with 3.5% applied to construction costs.
- Nominal discount rate of 6.09% applied to all costs and income.
- Financing assumes an interest rate of 6%.

Results

The scenarios which have been subject to financial appraisal have the following combination of performance and costs.

BVPI Performance:

- All options exceed 38% recycling rates by 2020.

LATS Targets:

- Only options 1, 3 and 4 meet LATS targets during the project life - these all incorporate the production of energy through heating. Options 1 and 4 meet targets by 2011/12 and Option 3 meets targets by 2012/13.

Capital Outlay:

- All technology options 1 to 6 require £20m capital expenditure on a MRF, HWSS, GWC, WTS and IVC.

- Do Nothing and Do Minimum only require capital outlay on an HWSS of £1.7m (Under Do Minimum MRF facilities are expected to be provided by third parties).
- All construction completed by 2011/12.
- Options 2, 5 and 6 require £70m-£95m and Options 1, 3 and 4 require £110m-£160m.

Operating Expenditure:

- In 2012/13 at the point all facilities are operational, annual operating expenditure is around £30m for options 1 and 4, £25m for option 3, and approximately £10m for Do Nothing and Do Minimum options.

Landfill Costs and Taxes:

- Due to the use of the technologies, all options 1 to 6 have lower landfill costs and taxes in comparison with Do Nothing and Do Minimum options.
- Annual landfill costs for the Do Nothing Option are highest rising from £17m in 2012/13 to £22m by the end of the project.
- Option 3 provides the lowest cost at only £4.5m in 2012/13 to £6.4m by the end of the project.

Third Party Income:

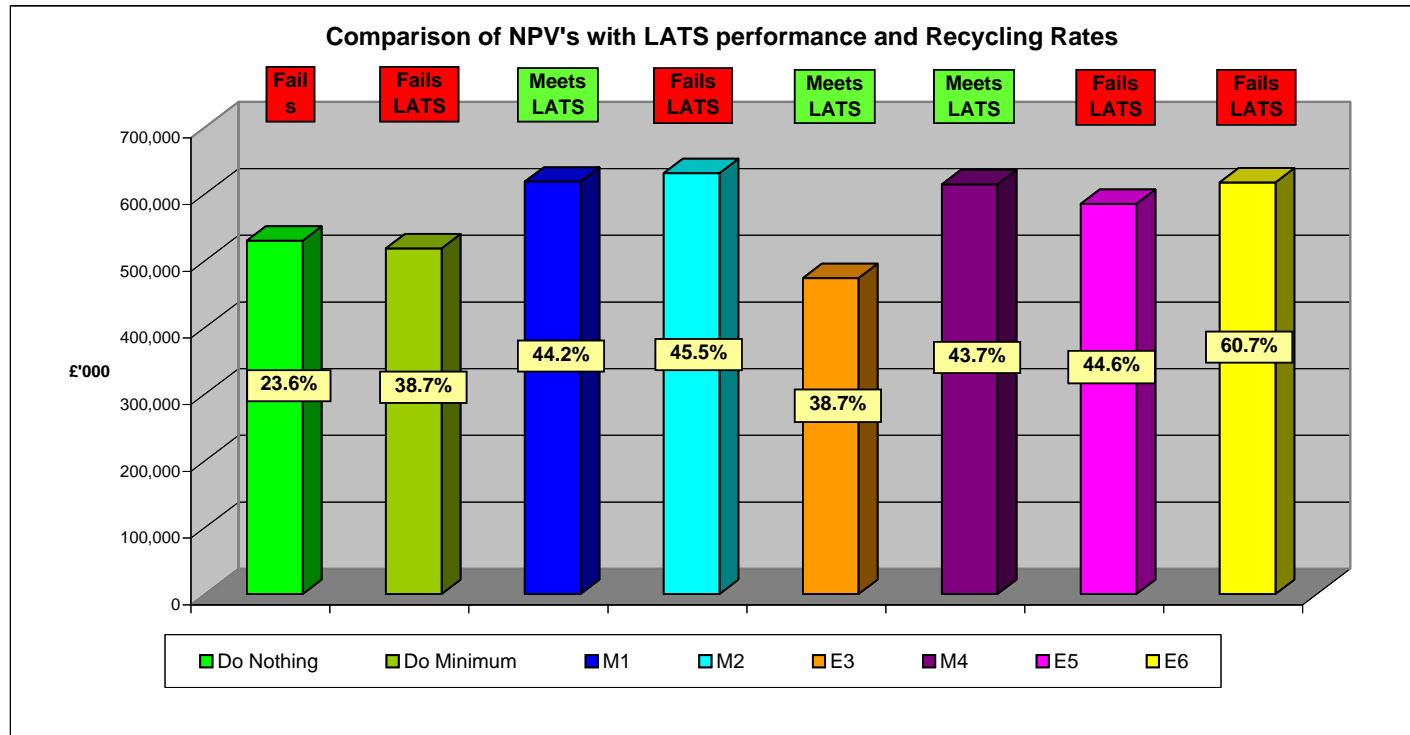
- Options 1, 3 and 4 have the highest third party income due to the sale of energy and spare capacity to third parties.
- There is minimal scope for third party income for either Do Nothing or Do Minimum due to the lack of facilities being constructed.

LATS:

- Option 3 is the only option to receive income through sale of LATS permits.
- Do Nothing and Do Minimum incur payments of £18m and £13m respectively in 2012/13.

	Do Nothing	Do Minimum	M1	M2	E3	M4	E5	E6
	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000
Capital Financing	1,897	1,897	151,237	75,505	138,781	154,907	103,448	88,970
Capital LifeCycle Costs	17,199	17,199	17,437	17,437	17,437	17,437	17,437	17,437
Operating Costs	147,070	210,577	458,595	302,860	336,637	436,912	328,544	380,402
Landfill Costs and Taxes	241,452	200,914	125,673	183,459	97,577	116,090	150,285	149,221
Tradeable Permits	122,300	87,403	1,221	80,886	-24,820	1,252	18,336	11,484
NPV	529,919	517,990	754,163	660,147	565,613	726,598	618,050	647,514
TPI	0	0	-135,904	-29,194	-91,987	-112,558	-33,127	-30,284
Total NPV	529,919	517,990	618,260	630,953	473,626	614,040	584,923	617,230
Ranking	3	2	7	8	1	5	4	6

Ranking for most likely LATS Scenario
E3
Do Minimum
Do Nothing
E5
M4
E6
M1
M2



Comparison of Disposal NPV's