

Appendix:3 - Net Present Value and Sensitivity Analysis

The business case for six internally owned and operated (2 place) homes has been tested using a net present value (NPV) analysis. The following shows a strongly positive NPV of £8.2m, based on an occupancy of 85% and comparative market costs of £7,500 per child per week:

	Total year 1 £m	Total year 2 £m	Total year 3 £m	Total year 4 £m	Total year 5 £m	Total years 6-10 £m	Total years 11-15 £m	Total years 16-20 £m	Total years 21-25 £m	Total years 26-30 £m	Total years 31-35 £m	Total years 36-42 £m	Total £m
Direct internal cost of provision	0.8	3.0	3.4	3.4	3.4	16.8	16.8	16.8	16.8	16.8	16.8	23.5	138.4
Market comparative cost	0.5	3.2	4.0	4.0	4.0	19.9	19.9	19.9	19.9	19.9	19.9	27.9	163.2
Potential revenue (cost) / saving	(0.3)	0.1	0.6	0.6	0.6	3.1	3.1	3.1	3.1	3.1	3.1	4.4	24.8
Capital investment	(2.4)	(0.1)											(2.6)
Net (spend) / saving	(2.7)	(0.0)	0.6	0.6	0.6	3.1	3.1	3.1	3.1	3.1	3.1	4.4	22.2
Net Present Value (NPV)	(2.7)	(0.0)	0.6	0.5	0.5	2.3	1.8	1.5	1.2	1.0	0.8	0.8	8.2

Sensitivity analysis for each of the main variables remains positive under a range of plausible scenarios but could be negatively affected by a movement from expected occupancy levels and/or service delivery costs:

Change in occupancy	75%	80%	85%	90%	95%
NPV (£m)	-0.2	4.0	8.2	12.5	16.7

Change in capital cost £m	-20%	-10%	10%	20%	
	£2.064	£2.322	£2.580	£2.838	£3.096
80% occupancy (£m)	4.5	4.3	4.0	3.8	3.5
85% occupancy (£m)	8.8	8.5	8.2	8.0	7.7
90% occupancy (£m)	13.0	12.7	12.5	12.2	12.0

Change in cost of borrowing (discount rate %)	3.5%	4.0%	4.50%	5.0%	5.5%
80% occupancy (£m)	5.2	4.6	4.0	3.5	3.1
85% occupancy (£m)	10.1	9.1	8.2	7.5	6.7
90% occupancy (£m)	15.1	13.7	12.5	11.4	10.4

Change in SCC operating costs (%)	-20%	-10%	-	10%	20%
80% occupancy (£m)	16.5	10.3	4.0	-2.3	-8.5
85% occupancy (£m)	20.8	14.5	8.2	2.0	-4.3
90% occupancy (£m)	25.1	18.8	12.5	6.2	-0.1

Change in market bed price (£/wk)	£6,500	£7,000	£7,500	£8,000	£8,500
80% occupancy (£m)	-5.2	-0.6	4.0	8.7	13.3
85% occupancy (£m)	-1.6	3.3	8.2	13.2	18.1
90% occupancy (£m)	2.1	7.3	12.5	17.7	22.9