

APPENDIX C: Cost Benefit Analysis of CMP actions against energy costs

Introduction

This basic Cost Benefit Analysis considers the increasing impact of energy prices up until 2014/15 against the estimated costs and savings from implementing the energy efficiency projects and opportunities identified in the Carbon Management Plan (CMP) (Appendix B).

It does not consider those projects already being implemented that will contribute carbon and energy efficiency savings, such as the Streetlighting Strategy and Medium Term Accommodation Strategies.

The framework on which the future financing of these (and other carbon reduction measures) is detailed on pages 24 to 25 of the Council's Climate Change Strategy (Appendix A) and pages 27 to 30 of the CMP.

The workings are included in the tables on the following pages and in more detail on pages 19 to 31 of the CMP.

What it shows us

- By 2014/15 the Council should expect an annual combined energy bill in the region of £4.6 million (currently £3.4 million). £2.86 million of this being paid by schools and £1.76 million being paid for energy use across the remainder of the Council's estate.
- This does not include where energy costs are covered by outsourced service providers or within the scope of the rent for buildings the Council rents.
- The combined cost of implementing the opportunities identified in the CMP is estimated at £1.1million over the five year period. The schools element of this comes to £893k and the remaining Council sites and offices' comes to £212k.
- These measures, when implemented, will save in total an estimated £1.6 million over the five year period. Of this £1 million of the savings comes from schools and £600k coming from the remaining Council sites and offices.
- These projects will continue to deliver savings in energy costs after the five year period explored in this document, the impact of which will be greater as the cost of energy continues to increase.

Assumptions

- Costs and savings for Streetlighting, Accommodation and ICT measures not included as these are already budgeted for.
- Where groups of measures have been identified as, opportunities it is assumed that the costs would be split equally over a 3 year programme.
- Energy costs increase at 5.3% per annum and saving have been amended to account for this.

- The level of savings from the various opportunities identified within the CMP is based on benchmarks and assumptions provided by the Carbon Trust.
- The impact of CRC is not included (more details on page 9 of the CMP). It is estimated that this will cost the Council £300,000 per annum in allowances, although a proportion of this will be returned to the Council in the form of a recycling payment (plus or minus a sum relating to performance).
- Finance are to advise on what elements of the measures would be covered under capital or revenue spend.

Predicted energy costs until 2014/15 and costs and savings from implementing CMP measures

	2010/11	2011/12	2012/13	2013/14	2014/15	5yr Total
Estimated Energy costs (no action taken)						
Corp sites estimated energy spend	1.43	1.51	1.59	1.68	1.76	10.66
Schools estimated energy spend	2.33	2.45	2.58	2.72	2.86	17.27
Total estimated energy spend	3.76	3.96	4.18	4.40	4.63	27.93
Estimated costs and savings from measures						
Total estimated savings	- 0.15	- 0.47	- 0.58	- 0.73	- 0.75	- 2.69
Total estimated cost of implementing all measures	0.73	0.35	0.43	0.34	0.10	1.10
Total Estimated efficiency saving (factoring in cost to implement)	- 0.76	- 0.12	- 0.15	- 0.39	- 0.85	- 1.59

(All figures in millions £)

Break down of measures between corporate sites and schools

		2010/11	2011/12	2012/13	2013/14	2014/15	5yr Total
Corporate sites etc	Cost of implementing measures set out in CMP 2010						
	Initial cost to implement the measure	0.02	0.06	0.88	0.003	0.003	0.18
	On-going costs	-	0.01	0.008	0.008	0.008	0.31
	Total estimated costs	0.02	0.07	0.96	0.11	0.11	0.21
	Estimated savings from measures						
	Estimated savings	- 0.09	- 0.14	- 0.14	- 0.18	- 0.19	- 0.75
Estimated efficiency saving (factoring in cost to implement)	- 0.06	- 0.07	- 0.04	- 0.17	- 0.18	- 0.54	
Schools	Cost of implementing measures set out in CMP 2010						
	Initial cost to implement the measure	0.47	0.27	0.32	0.32	0.13	0.83
	On-going costs	-	0.15	0.15	0.15	0.15	0.60
	Total Estimated costs	0.47	0.28	0.34	0.33	0.11	0.89
	Estimated savings from measures						
	Estimated savings (amended to reflect energy cost increases)	- 0.57	- 0.33	- 0.44	- 0.55	- 0.56	- 1.94
Estimated efficiency saving (factoring in cost to implement)	- 0.10	- 0.46	- 0.10	- 0.21	- 0.68	- 1.05	

(All figures in millions £)