Sefton Council
Carbon Management Programme

Carbon Management Plan (CMP) 2011 - 2016

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Contents

Foreword from the Chief Executive

At a time of increasing economic and environmental pressures, I am pleased to be able to present Sefton's second Carbon Management Plan. Building on the success of the first plan, alongside Sefton's long standing commitment to reducing resource use, operating costs and environmental impact, this new plan recognises the opportunities and challenges we face in identifying opportunities for carbon savings in difficult financial times, which will have positive outcomes for our Council, residents and service users. As such, this Carbon Management Plan sets out the Councils contribution to addressing the issues of climate change together with financial sustainability.

Sefton are committed to early action, recognising that the carbon reduction agenda offers an opportunity to realise long term savings and will ensure that this plan makes an important contribution to the reputation of Sefton as a good place to live and work. Whist issues of climate change mitigation and adaptation remain a true challenge, the Energy and Environment Management Section will engage with all areas of our organisation to foster a culture of carbon reduction and energy savings as an integral aspect of Council life, thus ensuring the ambitious carbon reduction targets are met locally and nationally.

Margaret Carney
Chief Executive
Sefton Council

Foreword from the Carbon Trust

Cutting carbon emissions as part of the fight against climate change should be a key priority for all public sector organisations. Carbon management is about realising efficiency savings, transparency, accountability and leading by example. The UK government has identified the public sector as key to delivering carbon reduction across the UK in line with its Climate Change Act commitments and the Carbon Trust's Local Authority Carbon Management Programme is designed in response to this. It helps organisations to save money on wasted energy and put it to better use in other areas, while making a positive contribution to the environment by lowering carbon emissions.

Sefton Council partnered with the Carbon Trust on the alumni stream of this programme in 2010-2011 to realise substantial carbon and cost savings. This Carbon Management Plan commits Sefton Council to a target of reducing CO_2 by 25% by March 2016 and underpins potential financial savings and cost avoidance to the organisation of around £7 million by that date.

Public sector organisations can contribute significantly to reducing CO_2 emissions and improving efficiency. The Carbon Trust is therefore very proud to support Sefton Council in their on-going implementation of carbon management.

Richard Rugg
Director, Carbon Trust Programmes
Carbon Trust

Executive Summary

Sefton Council Carbon Commitment:

- Carbon Management will be central to the way we provide services and run our business
- We will invest resources in practical measures which will reduce our carbon footprint and associated costs
- Key Partners Capita Symonds and Avarto will be bound to reduce carbon and cost from services delivered on behalf of the Council
- Every member of our staff will be directly involved in our carbon reduction programme
- We will support our customers and partners in their own carbon reduction efforts
- The strategic themes will link to existing policies as well as new policy standards to ensure carbon Management is embedded across all of the organisations everyday operations.
- As council policy all departments' service plans will include carbon management objectives and targets.

Sefton Council Carbon and CRC Cost Footprint

The Council's carbon footprint for 2009/10 was 35,709 tonnes of CO_2 based on energy use in all Council buildings, including community schools, street lighting and fleet transport and business miles travelled.

		tCO2 2009/10	CRC cost @ £12 p/tonne	%
BUILDINGS AND STREET LIGHTING	STREET LIGHTING	7,959	95,510	22%
	CORPORATE BUILDINGS	12,836	154,032	36%
	SCHOOLS	11,932	143,184	33%
TRANSPORT	FLEET	2,304	N/A	6%
	BUISNESS	678	N/A	2%
		35,709	**392,726**	**100%**

Figure 1: Summary of Baseline emissions and associated costs under CRC EES 2009/10

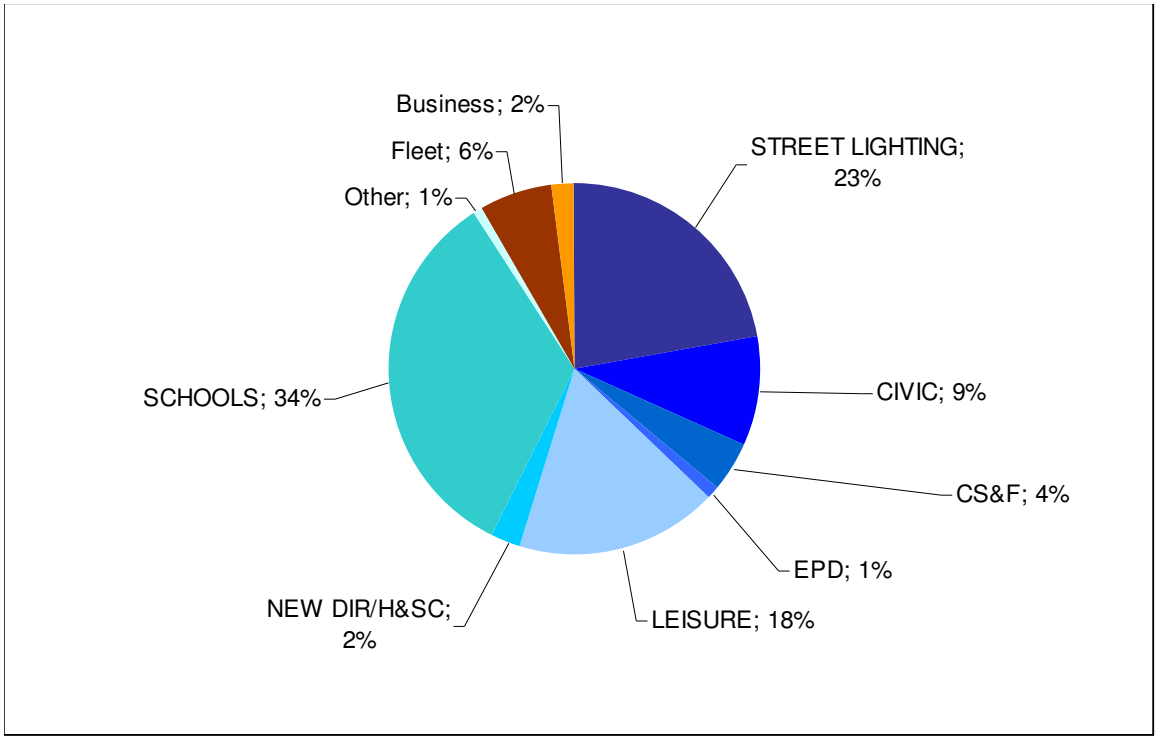

Figure 2: Breakdown by directorate of emissions baseline for 2009/10

Carbon Footprint Headlines

- Almost 70% of the Councils carbon emissions are generated by energy use in buildings with the remainder by travel and street lighting
- The associated total cost to the Council was £6.5 million in 2009/10
- This represents an annual at risk trading cost under the CRC EES of almost £400K
- Council fleet and staff travel for services is 8% of total emissions

This Carbon Management Plan (CMP) sets out a 5 year programme of actions designed to reduce our carbon emissions and mitigate associated revenue costs by 25% by March 2016, this will be achieved through 6 key areas:

1. Assets – reducing energy consumption across all corporate sites and schools

2. Sustainable Business Travel – Reducing the need to travel for business, facilitating the choice of sustainable and low carbon modes and saving costs through the adoption and implementation of Sefton Council Travel Plan

3. Decarbonising Fleet – developing a low carbon procurement policy

4. Street Lighting - developing a strategic approach to replacing stock and utilising energy saving technologies

5. Low Carbon Organisational Change – staff awareness raising, carbon budgeting, putting policy in place to ensure sustainable procurement,

6. Information Management – emphasis placed on monitoring and targeting of energy use

Target: Sefton Council will reduce the CO_2 emissions from its activities by 25% (8,927tonnes) from the 2009/10 baseline by 2016

Along side the strategic themes listed above, the CMP is fundamentally a comprehensive programme of energy efficiency improvements across Council buildings and street lighting assets, as well as introducing cultural changes to the manner in which we use our buildings, procure services and travel.

The projects detailed in this CMP propose to reduce the council's emissions over 5 years by 8,927 tonnes of CO_2. The projects identified total 90% of our target, which is 23% of the baseline. It is estimated that the cost of implementing these projects is £8 million, with an estimated payback period of 3 years. Within this, some schemes bring financial return in terms of tariffs for generating renewable energy. Funding for the projects is currently limited to year one (2010/11) and a £100K ring fenced invest to save fund established for Civic Buildings with investment from Salix (Carbon Trust). For the plan to succeed and for reductions in energy and carbon costs to be achieved, it is essential that financial backing is given and sustained over the next 5 years.

The following graphs demonstrate the reduced emissions scenario detailed in this plan compared to the business as usual scenario, both in terms of carbon emissions and costs – that is, if the Council took no action to reduce its consumption and emissions (see figure 3). By reducing our emissions the Plan will also enable us to avoid costs of £7 million over the 5 years the plan covers (see figure 4). With savings/cost avoidance continuing to be realised for many more years if completed actions are maintained.

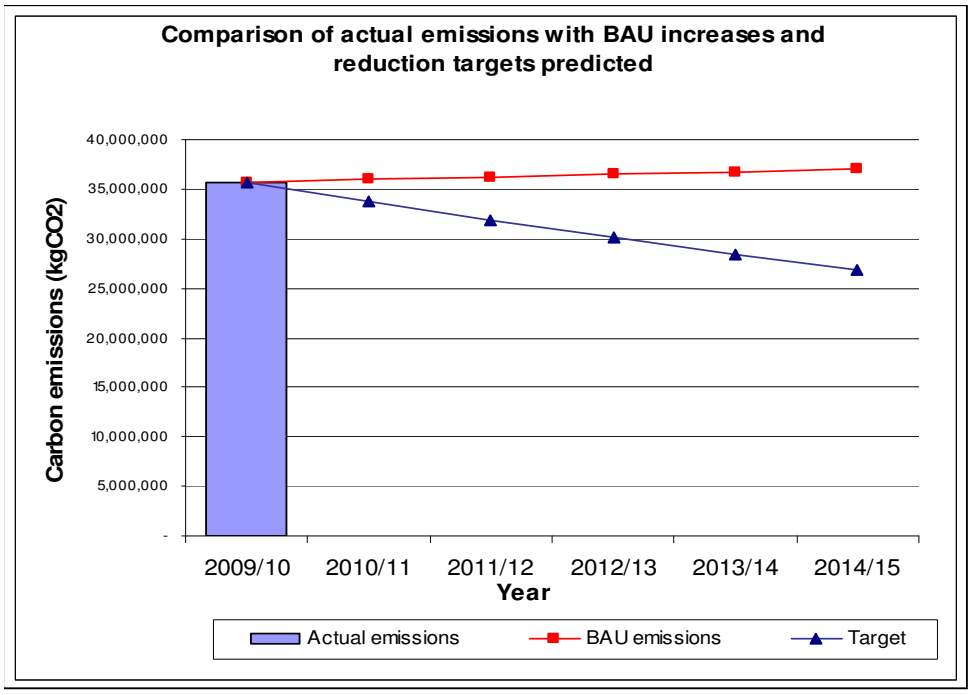

Figure 3: Carbon Emissions at Stake - Reduced emissions 'versus' do nothing scenario

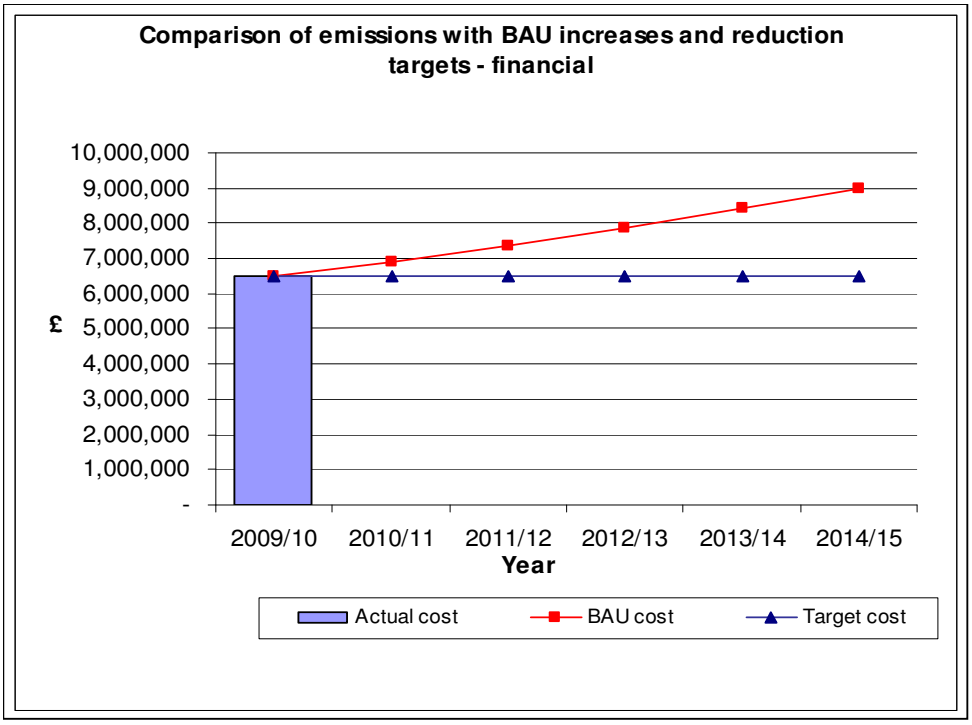

Figure 4: Financial Value at Stake - Reduced emissions 'versus' do nothing scenario

1. Introduction

Sefton Council is firmly committed to reducing its environmental impact, resource use and operating costs. In 2006 we were the first Merseyside local authority to produce a Carbon Management Plan, bringing an identified 13.5% reduction in carbon emissions exceeding original targets.

This CMP has been developed by the Councils Carbon Management Project Team, which was established across all areas of the Council following a successful bid to be supported by the Carbon Trust to join its Alumni Programme. This was designed to assist previous carbon management local authorities develop a new 5 year CMP.

As Carbon Management Plan Alumni we have been able to build on the success of the past plan and create a plan based on the challenges the council now faces. With increasing energy and water costs and the introduction of the Carbon Reduction Commitment Energy Efficiency Scheme (CRC EES) in April 2010, now is the time to focus on reducing consumption to mitigate further financial burden.

Past Successes include:

Reduction in waste to landfill by increased recycling

Cycle Salary Sacrifice Scheme

Folding bikes for staff travel

'Waste Busters' Staff campaign

£100K Civic Buildings 'invest to save' fund - Funding projects with life time savings of over 6,300 tonnes of CO_2 to date

Having a Carbon Management Plan in place defines the strategic and practical process the authority is taking to reduce its carbon emissions and meet the target set. This plan seeks to adopt a whole business approach, meaning that no individual department is wholly responsible, but the objectives of carbon reduction are imbedded across all of our activities.

The project team has used the 5 step process below to progress from the plans inception to embedding the actions developed. The identification and quantification,

along with the implementation and embedding is a fluid aspect of the plan, which will continue throughout the plans time span.

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Benefits that having a Carbon Management Plan bring to our organisation:

- Reduced energy costs
- Reduced liability and greater accuracy for CRC reporting
- Sustainable and transparent working practices
- Greater responsibility and understanding of climate change mitigation and adaptation

As part of the plan we have also adopted a range of policies and working practices that have enabled us to be a more sustainable authority. We have introduced through the plan policies relating to carbon management, which over the course of the next 5 years will complement the practical energy efficiencies being made through individual, specific projects (see section 4). These policies will be discussed in greater detail in section 2.

The project team has senior level representation from Director's and Service Head's – and it is from this level that imbedding carbon management as a corporate strategy will be sought. Internal awareness and behavioural change across the organisation will be established by the inclusion of Carbon Management principals in all service plans. In addition our political champion Councillor Shaw will be able to report on the progress and success of the plan back to cabinet.

2. Carbon Management Strategy

Saving Sefton's Money: Saving Sefton's Carbon

2.1 Context and drivers for Carbon Management

In the five years since Sefton Council published its last Carbon Management Plan the drivers have not changed, however the context in which we view the drivers has evolved. The impact of the global recession and change in government in 2010 has placed an oppressive financial burden on Local Authorities and in order to meet the challenges faced, Sefton must seek ways to transform and operate in the most efficient way it can.

As this plan is endorsed and imbedded in council policy, carbon management must be treated as a core element of all of Sefton's services, this way maximum financial and carbon savings can be achieved. Along with the current Transformation process, carbon management is part of providing modern council services to its stakeholders, and as such it should be seen as the responsibility of every Sefton employee.

Environmental and Global Drivers

- Global warming and climate change – the Stern Review (2006) concluded that the benefits of taking early action to tackle climate change far out weigh the investment costs

- Impacts of Climate change on Sefton's coastline over the next 20-100 years are likely to include:

- ✓ A rise in maximum summer temperatures by 2-4 c
- ✓ The warmest day of the year to rise by 4 c
- ✓ Increased occurrence of "mini heat waves"
- ✓ Summer rainfall may decrease by on average 11%
- ✓ Winter rainfall may increase on average by 20%
- ✓ Extreme storms may be more frequent and intense with rainfall events in excess of 150-200mm in one day leading to increased flooding events
- ✓ Sea levels may rise by up to 85cm

Local and National Drivers

- Rising energy costs – it is estimated that by the end of this decade, fuel prices will be 80% higher.

- Sefton Council's Transformation process – adapting working practices to make efficiency savings – both in energy consumption and working practices.

- Merseyside's Local Transport Plan (LTP) - Sets out the proposals for developing Merseyside's Transport system until 2024 whilst setting out some key priorities for the short term until 2015.

- The Carbon Reduction Commitment (CRC) Energy Efficiency Scheme – in force from April 2010 this is effectively a tax on public and private organisations CO_2 emissions.

- Reporting obligations to DECC on greenhouse gas emissions from Local Authority own estate and operations – successor to the National Indicator 185.

- EU Energy Performance of Buildings Directive – this requires Display Energy Certificates (DEC's) to be displayed in all public buildings over 1000m2. Industry experts predict that the requirement for certificates will be extended to include smaller public buildings from 2013.

Failure to achieve reductions in energy use and carbon emissions will result in:

- **Increased energy bills across the authority**

- **Annual increases in costs under the CRC Energy Efficiency Scheme**

- **A negative image in the community as we are seen to be wasting public funds and failing to act as a beacon of sustainability**

- **The authority contributing towards the local, national and global, negative impacts of climate change.**

2.2 Targets and objectives

Sefton Council will reduce the CO_2 emissions from its activities by 25% from the 2009/10 baseline by 2016

The projects and policies within the CMP will help us to reach this target.

Within the target are a number of other objectives which are carried through from our first CMP:

1. To reduce greenhouse gas emissions arising from the Councils operations in its buildings, vehicles/transport use, waste management, street lighting, procurement and ICT

2. To ensure that Caron Management is a common thread integrated through all service plans

3. To bind to together existing and future polices/strategies under a single Umbrella of Carbon Management

4. To become an environmental steward to the communities and businesses throughout Sefton, with the intention to catalyse action on reducing emissions.

2.3 Strategic themes

In order to achieve the target and objectives, strategic themes have been established to bring into focus to the identified projects as well as encompassing the wider issues of the CMP.

1. To reduce carbon emissions from council operations

- Strategic Asset management to reduce building emissions – corporate assets make up 33% of our baseline. We will use resources to target poor performing buildings and maximise renewable energy opportunities in high performing buildings

- Low Carbon and Sustainable Business travel & Decarbonising Fleet – transport makes up 8% of our baseline. We will reduce emissions through successfully implementing our staff travel plan by through a variety of measures.

- Street lighting makes up 23% of our baseline. We will reduce emissions by working with Capita Symonds to develop a strategic policy for implementation and funding of energy saving technologies – including LED replacements and dimming of street lighting.

- School's represent 34% of our total baseline. We will develop a programme to work with schools to identify those with higher than typical emissions and help put energy policies in place to enable them to reduce their energy use. To ensure long term success a whole school approach must be taken to involve the pupil and staff body.

- Procurement directly influences the carbon emissions from all of our operations. We will work in partnership with our procurement team to adjust our day to day operations and deliver lower emissions from the goods and services procured.

2. Embed Carbon Management across all current and future council policy and procedure

- Review and fully implement the Councils, sustainable procurement policy;

- work with Arvato and Capita Symonds to develop low carbon best practice in our supply chain;

- Ensure carbon management is seen as a core a value for the authority

- committing staff to carbon reduction activities

- Help service managers incorporate carbon management into their service plans, with measurable targets

3. Information Management and communication

- Information Management – utilising the roll out of automatic metering to improve monitoring and targeting to facilitate continued measurement of carbon emissions with greater accuracy

- Provide opportunities for staff and site managers to monitor energy use on a daily basis

- To report on the achievements of the plan

3. Emissions Baseline and Projections

In 2009/10 Sefton Council was responsible for the emission of 35,709 tonnes of CO2 costing the organisation £6.5 million

3.1 Scope

The scope of the CMP is based on CO_2 emissions from all local authority functions, where the data has been available, this includes out sourced functions such as New Directions and schools. After discussions with the CM team only a small section of sites have been excluded from the scope and these are schools for which the authority has no governance over (aided schools). Transport emissions from fleet and business miles are included in the scope.

Excluded from the scope are CO_2 emissions from waste, procurement, staff commuting and water. These have been excluded as insufficient data is available. If at a later date, baseline data is available for any of these areas then they will be included in revised versions of the CMP. The exclusion of these emissions from the scope highlights the importance of strategic themes, as the themes encompass the emissions outside of the scope of the baseline and will serve to have an impact on our emissions, even if they cannot be quantified by this plan.

As the scope includes sites and functions for which we have little or no control over, it has made the setting of our target more difficult as we know that reductions will be not be achieved equally across all areas of the authority.

3.2 Baseline

A baseline has been established to allow us to measure future carbon reduction.

The baseline year for this CMP is 2009/10.

The data has been gathered from a number of sources:

- Suppler invoices
- Site meter readings

- Transport and staff mileage, data supplied by Transport/fleet/recycling officers and the Finance department

Below is a the breakdown of total baseline emissions by directorate (as they were in 2009/10), along with the associated costs for the purchase of carbon allowances under the CRC (based on £12 p/t CO_2)

NB: Currently transport is not included in CRC reporting obligations

Category		tCO2 2009/10	%	CRC Cost £
BUILDINGS AND STREET LIGHTS	STREET LIGHTING	7,959	22%	95,508
	CIVIC	3,344	9%	40,128
	CS&F	1,593	4%	19,116
	EPD	386	1%	4,632
	LEISURE & TOURISM	6,286	18%	75,432
	NEW DIR/H&SC	885	2%	10,620
	SCHOOLS	11,932	33%	143,184
	OTHER	341	1%	4,092
TRANSPORT	FLEET	2,304	6%	0
	BUSINESS	678	2%	0
		35,709	**100%**	**392,712**

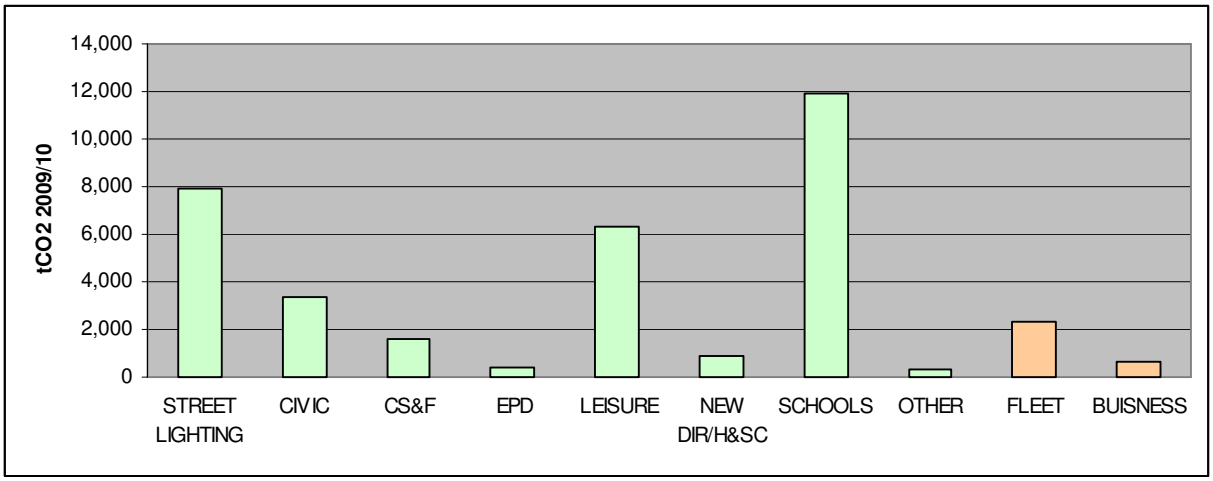

Figure 5: Summary table and chart of emissions for baseline year 2009/10

3.3 Section on Display Energy Certificates

Since 2008 public buildings with a floor area of 1000m_2 and over are required under European Law to produce and display DEC's. Below is a summary of certificates produced during the base line 2009/10. (For sites which have multiple buildings over 100m2, with multiple ratings only the certificate for the main building has been counted.)

The level of data each DEC provides is a useful tool in identifying and prioritising energy saving projects, as further to the overall rating the consumption is benchmarked by electricity and heating demand.

Rating	Number of DECs
A	0
B	0
C	14
D	20
E	17
F	6
G	5
Total	62
Average DEC score	108

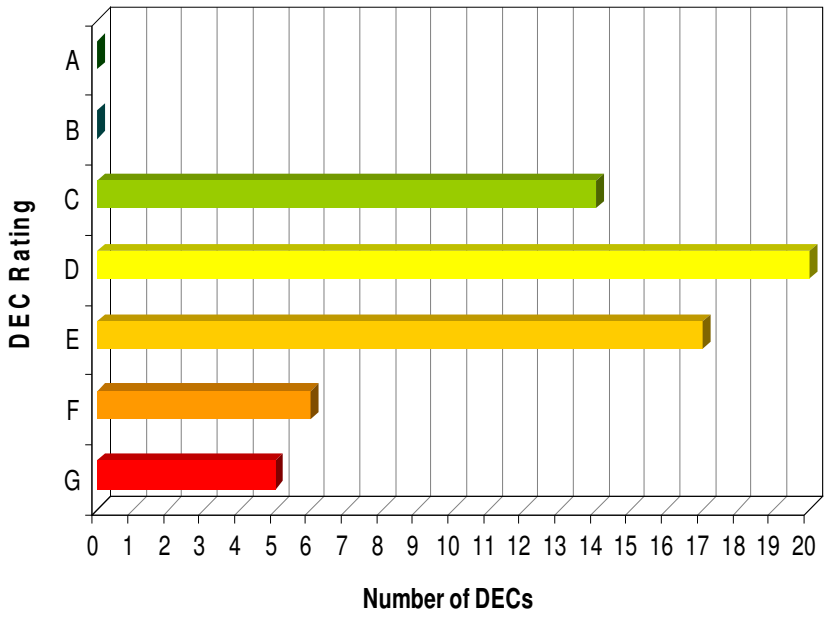

Figure 6: The above table and graph represent the Display Energy Certificate (DEC) ratings awarded to Sefton Buildings (including schools) with a floor area over 1000m_2 based on 2009/10 consumption data.

The DEC ratings have been utilised internally to identify and target the poorest performing buildings. This information is available for strategic asset management analysis in terms of the energy performance of buildings. Year on year analysis has also been used to identify successful projects. This approach has been formally analysed through a project carried out in conjunction with Liverpool John Moore's

University, where a primary school was singled out, with the intention of carrying out all the recommendations in the Advisory Report and monitoring whether or not the installations had a positive effect on the buildings DEC rating. The results show a successful drop in the overall operational rating of the building.

3.4 Projections and Value at Stake

In 2009/10 Sefton Council was responsible for the emission of 35,709 tonnes of CO2 costing the organisation £6.5 million

If we take no action to reduce emissions, this has an estimated cumulative value of £7 million in utility costs, over the five years to 2015/16, against the business as usual model

It is predicted that if Sefton Council took no action to mitigate its carbon emissions that by 2015/16 emissions would reach almost 37,000 tonnes, with additional associated costs of £2.5 million.

These calculations are based on Carbon Trust and Sefton's assumption that

- The increase in energy demand for buildings and fleet/business travel will be 0.7% (*source DTI/DBERR EP68*)
- Annual energy prices will increase by 6% (NB: This is DECC prediction, however, prices for 2011/12 have already increased by 17.5% - this has been taken into account in this plan, but future forecast increase at 6%)

Asset management will play a part in whether or not building decommissions or acquisitions will have a positive or negative impact on the total value at stake. However, as part of the CMP the push will be for portfolio rationalisation, which should cause a step change in emissions, reducing the overall value at stake.

The following graphs illustrate the value at stake in both terms of carbon and money. Using the baseline, emissions have been compared with the predicted business as usual increase and the reduced emissions scenario for the next 5 years. The difference between these end points is the value at stake.

In order to meet our target of 25% on 2009/10 emissions we must reduce our baseline emissions by 8,927 tonnes. In addition to avoiding increased energy costs, this also equates to a saving of £107,127 in CRC allowances. The cumulative value at stake is estimated to be £7 million against business as usual, although as we have already seen significant energy price increases this could well increase through out the next 5 years.

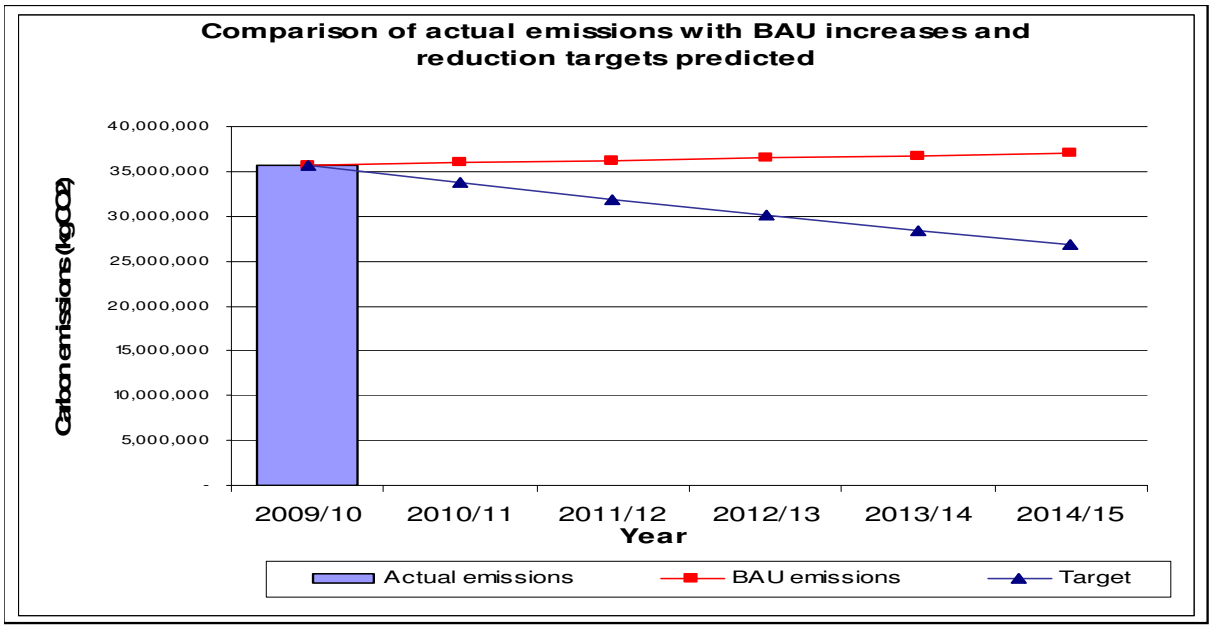

Figure 7: Carbon Emissions at Stake - Reduced emissions 'versus' business as usual scenario

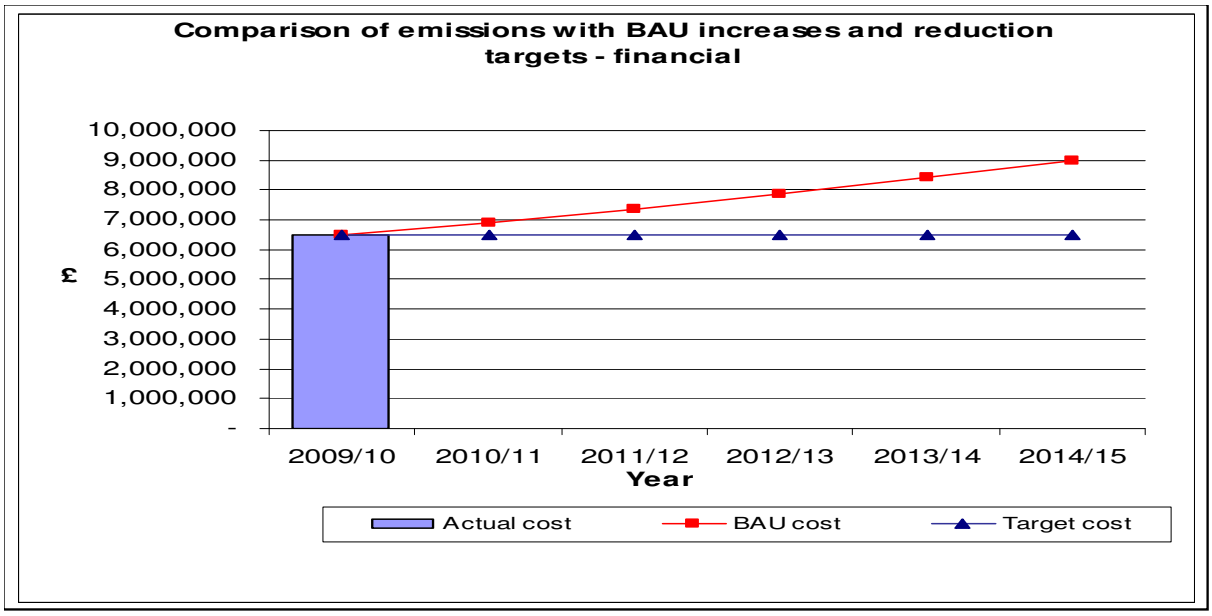

Figure 8: Financial Value at Stake - Reduced emissions 'versus' business as usual scenario

4. Carbon Management Projects

Projects identified total 90% of our 25% target

During the first year of the plan a number of projects have been successfully completed. These, along with the remaining projects listed in the following tables make up 92% of the targeted savings.

When identifying projects we have prioritised those that deliver both CO_2 and revenue savings. Furthermore projects are assessed to ensure that they deliver long term CO_2 savings based in the capital cost of CO_2 saved over the life time of the project.

Due to public sector spending restrictions, funding has been limited and is not fully committed past year one, projects identified are realistic for the length of the plan. Emphasis has been placed on monitoring and targeting of energy use and raising staff awareness to reduce consumption. Savings for these types of programmes rely as much on staff buy-in and officer time as they do on the technology used so combining the strategic themes of information management and imbedding carbon awareness within policy changes will be key to making these projects a success.

Established technologies such as cavity and loft insulation, motorised pool covers and variable speed drives have been successful projects. We have also made use of new technology, such as LED lighting at Bootle Strand Car Park which has been equally as successful, giving us confidence to identify and install similar projects across the portfolio.

Advancements in street lighting technology and changes in standards has allowed us to roll out a programme of replacing some previously lit road bollards, with easy to clean, flexible high reflective bollards, reducing their energy consumption to zero. Street lighting dimming is becoming increasingly the norm across local authorities and we believe that the upcoming local consultation will pave the way for Sefton to roll out the technology and exceed the savings identified in project 11.

Although business travel accounts for only 2% of the carbon baseline figure the council still views it as an important issue as additional financial savings can be made through reviewing business mileage policy and budgets. Encouraging the use of walking, cycling, public transport and car share during working hours has a range of wider benefits including, reduced demand on long stay car parking and a healthier workforce.

Alongside energy savings are inherent operational savings; these have not been fully quantified identified but will where possible be captured in future reporting.

4.1 Existing projects

Ref	Project	Lead	Cost	Annual Savings (yr 1)		Pay back (yrs)	% of Target	Year
			Capital	Financial (Gross)	tCO2			
1	Bootle Town Hall Draught proofing	Stephanie Hopkin	£15,414	£1,712	10.5	9	0.12%	2010
2	Bootle Town Hall Roof Insulation	Stephanie Hopkin	£9,136	£2,012	12.3	4.5	0.14%	2010
3	Southport Town Hall Boiler House insulation	Stephanie Hopkin	£2,250	£400	2.5	5.6	0.03%	2010
4	Various Insulation jobs in Children's Homes and Hostel		£7,208	£6,004	36.8	1.2	0.41%	2010
5	Crosby Civic Hall/Library Cavity Wall Insulation	Christine Hall	£6,857	£11,093	68	0.6	0.76%	2010
6	Variable Speed Drive's Dunes/Splashworld	Scott Stevens	£20,685	£14,956	81.4	1.4	0.91%	2010
7	Vending Machine 7 Day timers - Various sites	Stephanie Hopkin	£912	£2,939	16	0.3	0.18%	2010
8	Bootle Multi Storey Car Park LED Lighting Scheme	David Marrin	£60,000	£18,993	103.4	3.2	1.16%	2010
10	Dunes Motorised Pool covers	Scott Stevens	£29,393	£9,972	61.1	2.9	0.69%	2010
15	PC Power down across corporate buildings	Linda Price	£0	£1,657	9	0	0.10%	2010
17	Bootle Leisure Centre Variable Speed Drives	Nicola Macaulay	£24,640	£20,516	111.6	1.2	1.25%	2010
30	Magdalen House Lighting Controls	Stephanie Hopkin	£13,289	£2,923	15.9	4.5	0.18%	2010
18	Bootle Leisure Centre Pool Cover	Nicola Macaulay	£17,429	£10,909	66.9	1.6	0.75%	2010
22	Fridge rationalisation	Stephanie Hopkin	£0	£245	1.3	0	0.01%	2010
						TOTAL	6.69%	

Figure 9: Projects which been funded and implemented during 2010/11

4.2 Planned / funded projects

The projects listed below are planned and funded projects (fleet driver training has already been rolled out). These projects are financed and will be delivered and during 2011/12.

Ref	Project	Lead	Cost	Annual Savings (yr 1)		Pay back (yrs)	% of Target	Year
			Capital	Financial (Gross)	tCO2			
21	Re launch Waste busters Campaign/Site support	Ian Weller/ Stephanie Jukes	£5,000	£415,954	2288.3	0	25.63%	2011
12	AMR across portfolio	Ian Weller	£260,000	£415,954	2288.3	0.6	25.63%	2011
23	Fleet Driver Training	Vin Donnelly			Not quantified			2011
20, 24, 28	Reducing Business Miles (Sefton Council Travel Plan)	Lee Davies	£1,000	TBC	Not quantified			2011
25	Fleet Zoning	Gary Berwick	£1,000		Not quantified			2011
31	Eco Centre LED lighting scheme	Stephanie Hopkin	£7,000	£2,300	12.5	3	0.14%	2011
32	Low Emission Procurement Tool	Stephanie Jukes / Brian Gibson			Not quantified			2011
						TOTAL	51.40%	

Figure 10: Projects which are funded and will be fully implemented during 2011/12

The table above includes two major projects, upon which a large proportion of the baseline savings are hoped to be achieved. Installing automatic metering will not atomically reduce consumption. Instead it relies upon the proactive approach to analysing and monitoring the output data and taking the appropriate targeting response. Our energy database will be updated to ensure data flows are in place and profile alarms set to alert the team to any significant problems. However, this remains a time consuming exercise and also requires a commitment from someone at site level, to implement any necessary changes – for example altering time clocks on boilers/lights. The Energy and Environmental Management Team will be in charge of overall monitoring, but we will engage with schools and site managers to actively encourage them to look at their own sites consumption, in turn this encourages responsibility at site level.

The second project which is fundamental to the success of the plan is the re-launch of the communications campaign. Ensuring a successful level of savings from behavioural change is hard work and requires a sustained effort not only from the project leaders, but every officer within the council. Adopting and changing working practices with energy efficiency in mind can be as simple as remembering to turn of your computer screen when you go out for meeting, yet for this to have an effect on

reducing overall baseline consumption it must be adopted across the board. Morn information on this can be found in section 6.3.

4.3 Near term projects

Ref	Project	Lead	Cost	Annual Savings (yr 1)		Pay back (yrs)	% of Target	Year
			Capital	Financial (Gross)	tCO2			
9	Street lighting Bollards to High Reflective no. 255	Paul Scott	£54,422	£4,918	26.8 tCO2	11.1	0.30%	Part Funded 2010/11
13	Illuminated Signs to LEDs no. 2686	Paul Scott	£214,900	£18,267	99.4 tCO2	11.8	1.11%	Part Funded 2010/11
19	Meadows Pool Cover	Scott Stevens	£17,000	£10,890	66.8 tCO2	1.6	0.75%	2011
11	Street lighting Dimming 6000 Lamps	Paul Scott	£393,000	£39,792	216.5 tCO2	9.9	2.43%	2012
						TOTAL	4.59%	

Figure 11: Projects which are planned but not funded

4.4 Medium to long term projects

Ref	Project	Lead	Cost		Annual Savings (yr 1)		Pay back (yrs)	% of Target	Year
			Capital	Operational	Financial (Gross)	tCO_2			
26	Tech Forge Estimate Schools Boiler and double glazing scheme	Ivan Guy	£2,500,000		£301,620	1849.5 tCO2	8.3	20.72%	2012
27	Tech Forge Estimate Corporate boiler and double glazing scheme	Ian Weller	£1,000,000		£47,503	289.4 tCO2	21.1	3.24%	2012
29	Proposed Photo-Voltaic (FiT) Scheme	Mo Kundi	£3,992,120	-£251,632	£59,248	322.4 tCO2	12.8	3.61%	2014
14	Trial Main Road Street Lights to LED	Paul Scott	£10,000		£1,500	1.9 tCO2	does not payback	0.02%	2013
							TOTAL	27.59%	

Figure 12: Projects which may take place before 2015/16, but are not yet planned in detail

Some of the medium to long term projects within the plan have estimated costs attributed to them, making them currently prohibitive. As further feasibility is done on these projects it is expected that these costs will be narrowed down in order to bring the projects in line with maximum paybacks of 7 to 10 years. If this is not possible then other projects will be identified to ensure the carbon savings are achieved, but not at excessive cost versus payback.

4.5 Projected achievement towards target

The table below demonstrates how the projects identified to date are helping us achieve our target reduction of 25%. The short fall in emissions will be met by the continued generation of projects throughout the life of the plan and the successful implementation of the key elements within our strategic themes.

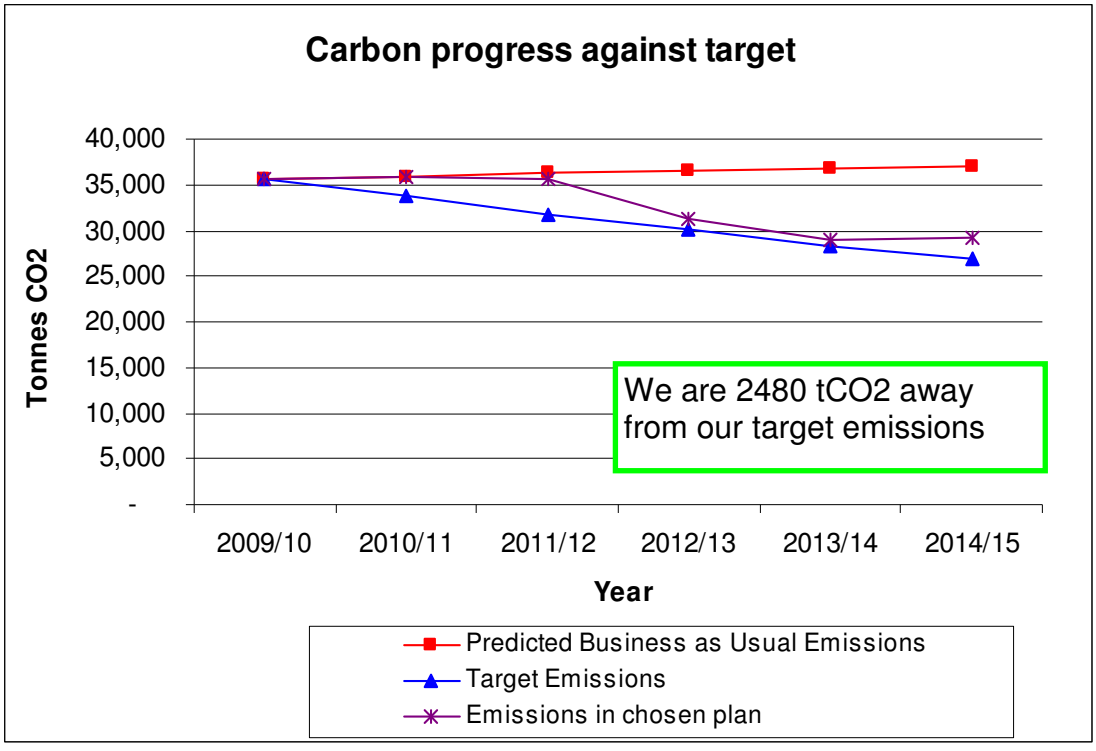

Figure 13: Progress against target

Projects by Building Category	Number of Projects	% of Target
Buildings - All	2	51%
Buildings - Corporate	18	14%
Buildings - Schools	1	21%
Street Lighting	4	4%
Transport	6	0%
Total	31	90%

Figure 14: Summary table of the spread of projects across the baseline scope

Analysis of the table above demonstrates that greater engagement with schools is needed in order in increase the number of energy savings projects they are engaged in and that we are informed of their progress. A revised communication strategy with regards to targeting schools is now in place, with the aim of raising their awareness to behavioural change and advising on practical measures via an energy/water audit – more information on this can be found in section 6.8.

5. Carbon Management Plan Financing

The cost to install all the projects identified in this plan is over £8 million, this would enable us to reach 90% of our target. These savings have been summarised below.

Additional cost mitigation for the purchase of carbon allowances for the CRC would be over £100,000.

At the time of writing no additional sources of funding have been obtained to fund these projects, with the exception of year one projects and the Salix ring fenced budget of £100K for Civic Buildings. We are actively developing a range of financing options from both public/private sources to enable the delivery of both scoped and new projects.

NB: Some of the projects within the plan have estimated costs attributed to them, making them prohibitive. As further feasibility is done on these projects it is expected that these costs will be narrowed down in order to bring the projects in line with maximum paybacks of 7 to 10 years. If this is not possible then other projects will be identified to ensure the carbon savings are achieved, but not at excessive cost versus payback.

5.1 Benefits / savings – quantified and un-quantified

	2011	2012	2013	2014	2015
Annual cost saving	**£0**	**£115,221**	**£948,358**	**£1,360,457**	**£1,360,857**
Annual CO_2 saving	**0.00**	**663.59**	**5246.83**	**7728.51**	**7730.69**
% of target achieved	**0%**	**7%**	**59%**	**87%**	**87%**

Figure 15: Annual cost and CO_2 savings and progress towards target

Operational savings have not been calculated here, but many schemes such as the installation of LED lights with long life span and newer more efficient boilers, will bring with them significant savings in reduced revenue and maintenance costs across the facilities lifetime.

Unquantified benefits:

There are other benefits which have cannot be quantified in carbon or financial terms, which will bring benefit to the authority

- Improved knowledge and skills in project managent and delivery of the CMP. Ability to adapt and respond to government reporting demands with regards to carbon emissions.
- Better informed stakeholders in the issues surrounding Carbon management and energy efficeieny.
- Local economic benefit.
- Staff travel plan will encourage a healthier workforce.
- Having a stategy in place is more likely to attact external funding as it.
- shows our commitment – this was a result of the previous CMP.

5.2 Financial costs and sources of funding

Annual Costs	2010/11	2011/12	2012/13	2013/14	2014/15
Total annual capital cost	£224,213	£541,322	£3,893,000	£10,000	£3,992,120
Total annual revenue cost	£0	£0	£0	£0	£0
Total costs	£224,213	£541,322	£3,893,000	£10,000	£3,992,120
Committed funding					
Committed annual capital	£174,213	£200,000	£0	£0	£0
Committed annual operational revenue - From Civic Building SALIX ring fenced fund *	£50,000	£56,000	£20,848	£20,000	£20,000
Total funded	£224,213	£256,000	£20,848	£20,000	£20,000
Unallocated funding					
Unallocated annual capital	£0	£541,322	£3,893,000	£10,000	£3,992,120
Unallocated annual operational revenue	£0	£0	£0	£0	£0
Total unfunded	£0	£85,322	£3,872,152	£0	£3,972,120

*** Salix funding allocated for Civic Buildings only. Amount available for years 3, 4 and 5 depend on level of repayments made to fund**

Figure 16: Annual costs and sources of funding. Salix Funding has been highlighted in red

The table above summarises the allocated/committed funding available and the unallocated funding needed to finance the projects in the plan, versus the total needed each year.

The funding for 2010/11 came from committed capital funding and Salix funds. Currently the only committed annual revenue savings come from the reinvestment of savings made by existing Salix funded schemes. It is a requirement of the scheme that this money is returned to the fund and reinvested in further carbon saving initiatives, so this funding is secure for the foreseeable future. The additional funding for 2011/12 is specifically for the roll out of automated meters (project 12) and its source is secure. Additional funding after 2011/12 has not yet been confirmed yet the successes of the projects from year 1 are being built into a business case for further investment from central finances. In addition the Energy and Environmental Management Team are seeking investment from external companies to secure significant and long term investment in carbon saving initiatives across the council's portfolio.

6. Actions to Embed Carbon Management in Our Organisation

To ensure that carbon management is not just the responsibility of one or two officers, a series of actions and processes that are endorsed across the council have been developed. This section outlines the processes we have adopted at Sefton to ensure carbon management is part of a 'business integration' approach.

The process began with an Implementation workshop using the Carbon Management Embedding matrix, the group were asked to assess where they thought the authority was currently on a level of 1 to 5 (level 1 is low and level 5 is high) and where we hope to be by the end of the 5 year programme (Appendix A). The areas considered by the matrix are:

- Corporate strategy
- Programme Management
- Responsibility
- Data Management
- Communication and Training
- Finance and Investment
- Policy Alignment
- Engagement of Schools

Our aim is to achieve level 5 in all areas of the matrix over the next 5 years and believe that applying and expanding on the strategic themes and proposals within this plan will enable us to achieve this goal.

6.1 Corporate Strategy – embedding CO_2 saving across Sefton Council

Sefton Council has set itself a short term target of 25% reduction in carbon emissions by 2016. To achieve this we will ensure that a series of detailed actions are included in every department's annual service plan. This will feed through to the Corporate Plan (currently being reviewed) as well as influencing the Council's current transformation process.
Other strategy areas that we will seek to influence are;

- Sefton's Sustainable Community Strategy (as and when it is refreshed)
- Financial planning – To introduce carbon budgets alongside financial budgets and introduce internal audit to the concept (linked to the CRC EES charges).
- Asset Management strategy – Buildings are a key contributor to our carbon footprint and we will continue to utilise this strategy.

- Risk Management – With the total cost of energy, water and fuel rising, together with a high level of uncertainty over the scale of the potential increase, Energy management has been listed (on the risk register) as a key corporate risk.
- Sefton Council's Travel plan – To press for its adoption and successful implementation across the authority.

Our long term ambition is to have a joint climate change plan which would combine mitigation with adaptation and over time address other emissions which contribute to climate change. This plan would, as well as looking inwards, consider climate change in the wider community.

6.2 Programme Management – bringing it all together effectively

The co-ordination of the CMP will be carried out by the Energy and Environmental Management Team. In addition to this team there are two key groups of officers within the Council, these are;

The Programme Management Board. This group comprises Heads of Service, Councillor for the Environment and representatives from the Energy & Environmental Management Team and is responsible for;

- Providing senior level endorsement and ownership
- Taking decisions and authorising the approach taken
- Integrate the CMP actions within the corporate monitoring system (SPRINT)
- Ensuing relevant activities are carried out by officers or their team(s)
- Reviewing progress
- Authorising financial investment
- Foster a culture of carbon saving

The Carbon Management Team. This group is made up of project owners and other lead officers. They are responsible for;

- Helping to identify projects
- Running and delivering projects
- Providing feedback on progress to Energy & Environmental Management Team
- Monitoring KPIs (as determined by Service plan and project outcomes)
- Assisting in corporate communications

6.3 Responsibility – being clear that saving CO_2 is everyone's job

Sefton's approach is to ensure that all departments take responsibility for reducing carbon emissions. Initially all departments will be asked to adopt the 25% target as

part of their service plan. In 2012 we will ask departments to include a more detailed series of actions and associated targets.

In terms of raising awareness generally amongst employees, Sefton has developed a communications plan which includes a range of activities to ensure staff are aware of why we need to act and how best to do that in their current role. We will also target key staff (with responsibility for carbon intensive operations) for additional support.

6.4 Data Management – measuring the difference, measuring the benefit

Sefton Council use an energy management system to record invoice data and site meter readings. All site/office mangers are encouraged to use the interactive web portal which links to this database. Users are reminded to add monthly meter readings which allow us to monitor energy consumption and alert users to any large changes in consumption. Once automatic meters have been rolled out this system will allow large amounts of data to be collated and monitored easily as well as enabling reports to be generated so sites can monitor their own performance.

Data management is a key requirement of any management system. Sefton's Energy and Environmental Management Team will collate all carbon data. In order to monitor progress project owners will, where practical, be required to submit quarterly/bi-annual updates on consumption and project progress.

Data will be utilised as part of the Climate change communications plan (CCCP), to raise awareness and encourage action as well as reporting progress to staff.
Data will also be provided every quarter to members of the Carbon Management Team, as a method for monitoring progress and maintaining dialogue with management teams.
Our ICT Partners Arvato are supportive of the CMP and are taking steps to provide integrated support.

We have identified a number of key Performance indicators. They include;
- Progress against our 25% target
- Inclusion of CMP in service plans
- NI and CRC progress
- Numbers of new projects

6.5 Communication and Training – ensuring everyone is aware

It is widely accepted that a good communications and awareness raising programme can help an organisation to reduce its emissions, as staff gain motivation and competence and take responsibility for carbon reduction.

Sefton have developed a Low Carbon communications plan which has identified a number of projects that will focus on providing relevant information and encouraging employees to act.

Some examples of projects we will deliver include; a dedicated intranet site, which will act as a hub for information to support staff; Online and other training for all staff to provide a basic level of knowledge; Poster campaigns and innovative activities e.g. using thermal imaging cameras. We will also be able to offer out reach support to individual buildings or departments in the form of site surveys and bespoke energy advice.

6.6 Finance and Investment – the money to match the commitment

As section 5 has demonstrated there are significant gaps in financing for the remaining projects in the plan and also future projects. Through reporting on the achievements to date we will build a strong business case for further capital investment. Following the Salix invest to save model, there is also a strong case for devising an internal recycling fund for energy saving projects.

6.7 Policy Alignment – saving CO_2 across our operations

Sefton Council have a range of policies which have the potential to include a carbon reduction commitment, this would strengthen our 25% target. These policies include;

- Corporate Plan
- Transformation Plan
- Sustainable Procurement Policy
- Sustainable Travel Plan
- Air Quality Management plan
- ICT Strategy (Arvato)
- Capita Contract & associated policies (potential to be influenced through ISO14001 procedures)
- Waste Management Strategy (Merseyside)

This CMP seeks to umbrella all these policies, in order that it is adopted as the cross cutting council policy on carbon reduction.

6.8 Engagement of Schools – working with Schools to reduce their carbon footprint

Sefton have a two pronged approach to engaging with schools. We have an award winning Eco-centre, which delivers high quality educational experiences to local schools. These are delivered away from schools at a dedicated eco-friendly building with dedicated classroom facilities. From April 2011, we are also providing targeted bespoke support in schools to develop an action plan and develop a whole school approach to reducing emissions.

The majority of schools in Sefton are Eco-schools and many have followed the sustainable schools framework. Sefton officers have developed an excellent relationship with schools and offer a number of supplementary services which will strengthen and reinforce our work on reducing carbon emissions. These include

- Bespoke site by site carbon and water audits
- Joint educational visits
- Supportive funding bids

Recognition of carbon reduction actives by individual schools is then followed up by the annual Eco-champions awards (acknowledging and rewarding environmental efforts), The Big Green envelope (Environmental information sent out 3 times per year to all schools), The Green Stars league table (where schools achieve stars/league position through reporting their environmental efforts) and attendance at Head/Deputy Teacher conferences. Reduction in energy use is also recognised by an improved DEC rating.

7. Programme Management of the CM Programme

In order for the CMP to maintain momentum, Sefton have developed a strong system of management to ensure the success of this plan. This includes, strong support from leaders, co-ordination of activities, clear roles and responsibilities and effective monitoring.

7.1 The Programme Board – strategic ownership and oversight

This group comprises Heads of Service, Councillor for the Environment and representatives from the Energy & Environmental Management Team and is responsible for;

- Providing senior level endorsement and ownership
- Taking decisions and authorising the approach taken
- Integrate the CMP actions within the corporate monitoring system (SPRINT)
- Ensuing relevant activities are carried out by officers or their team(s)
- Reviewing progress
- Authorising financial investment
- Foster a culture of carbon saving

This high level strategic group will meet twice a year and will be chaired by the Cabinet Member for Environment. The Board will consider progress of projects towards meeting strategic targets and PIs, barriers and risks to that progress, opportunities and future development of the CMP.

The Board will provide a briefing report (a summary of the proceedings) to the Strategic Leadership team and where required (a key decision is needed) to elected members. in the form of a committee report.

7.2 The Carbon Management Team – delivering the projects

This group is made up of project owners and other lead officers. They are responsible for;

- Helping to identify projects
- Running and delivering projects
- Providing feedback on progress to Energy & Environmental Management Team
- Monitoring KPIs (as determined by Service plan and project outcomes)
- Assisting in corporate communications

This group will meet twice a year to discuss the progress of individual projects, their role in communications and any issues that need to be raised and addressed by the

Programme Board. The minutes from this group will be sent to the Programme Board for discussion and action where required.

7.3 Succession planning for key roles

Key roles within the CMP include Chair of the Programme Board, key Project owners and members of the Energy and Environmental management Team.

The Chair of the Programme Board is Cabinet Member Environment. The current councillor has support from other councillors on environmental matters and would be replaced if he decided to step down.

Key project owners are usually part of larger teams so with an appropriate update and handover another officer would take on the role of 'project owner' if that member of staff left for any reason.

The Project Leader and Deputy Project Leader are members of the Energy and Environmental Management Team. If either of these officers were unable to continue with their role then other members of the team who are also closely involved in the CMP could take on their responsibilities. As with project owners a detailed handover would be given and the CMP board and team members would be advised accordingly.

7.4 Ongoing stakeholder management

Departmental management Teams will receive a quarterly update on energy/water consumption as well as a reminder about which activities they need to progress. This will be produced and distributed by the EEM Team.

7.5 Annual progress review

To coincide with the Carbon Trust's annual review, an internal review on the progress made against the plan will be produced and made available to all CMP board/team members. Through the CMP board it will also be reported to SLT.

The review will cover:

- The cost benefits of the programme
- A breakdown of projects by department
- Progress towards our 25% target
- Other benefits of the plan, such as other polices produced and implemented as a result of it and our influence on the wider community

In addition both qualitative and quantitative actions which have been included in service plans will be monitored through Sprint Reviews.

Appendix A: Carbon Management Matrix – Embedding

	CORPORATE STRATEGY	PROGRAMME MANAGEMENT	RESPONSIBILITY	DATA MANAGEMENT	COMMUNICATION & TRAINING	FINANCE & INVESTMENT	POLICY ALIGNMENT *	ENGAGEMENT OF SCHOOLS
Mature 5 5 Years Time	· Top level target allocated across organisation · CO_2 reduction targets in Directorate Business Plans · Action plans in place to embed strategy. Progress routinely reviewed	· Cabinet / SMT review progress against targets on quarterly basis · Regular diagnostic reports provided to Directorates · Progress against target published externally	· CM integrated in responsibilities of senior managers · CM part of all contracts / Ts & Cs · Central CO_2 reduction advice available · Green Champions leading local action groups	· Regular collation of CO_2 emissions for all sources · Data externally verified · Monitoring & Targeting in place for: o buildings o street lighting o transport/travel	· All staff given formalised CO_2: o induction and training o communications · Joint CM communications with key partners · Staff awareness tested through surveys	· Finance committed for 2+yrs of Programme · External funding being routinely obtained · Ring-fenced fund for carbon reduction initiatives	· CO_2 friendly operating procedure in place · Central team provide advice and review, when requested · Barriers to CO_2 reduction routinely considered and removed	· A 'whole school approach' including curriculum · Mature programme of engagement in place · CO_2 saving in schools having a wider community impact
4	· CO_2 reduction commitment in Corporate Strategy · Top level targets set for CO_2 reduction · Climate Change Strategy reviewed annually	· Sponsor reviews progress and removes blockages through regular Programme Boards · Progress against targets routinely reported to Senior Mgt Team	· CM integrated in to responsibilities of department heads · Cabinet / SMT regularly updated · Staff engaged though Green Champion network	· Annual collation of CO_2 emissions for: o buildings o street lighting o transport/travel · Data internally reviewed	· All staff given CO_2 reduction: o induction o communications o CM matters ~ communicated to external community	· Co-ordinated financing for CO_2 reduction projects via Programme Board · Funding principles and processes agreed · Finances committed 1year ahead · Some external financing	· Comprehensive review of policies complete · Lower level policies reviewed locally · Unpopular changes being considered	· A clear emphasis on energy / CO_2 reduction in schools · Council activities fully co-ordinated · Broad set of education stakeholders engaged · Funding in place
3 Current	· Vision for CO_2 reduction clearly stated and published · Climate Change Strategy endorsed by Cabinet and publicised with staff	· Core team regularly review CM progress: o actions o profile & targets o new opportunities	· An individual provides full time focus for CO_2 reduction · Key individuals have accountability for carbon reduction · Senior sponsor actively engaged	· Collation of CO_2 emissions for limited scope i.e. building only	· Environmental / energy group(s) given ad hoc: o training o communications	· A view of the cost of CO_2 reduction is developing, but finance remains ad-hoc · Some centralised resource allocated · Finance representation on CM Team	· All high level and some mid level policies reviewed, irregularly · Substantial changes made, showing CO_2 savings	· A person has responsibility for Schools CO_2 reduction · Schools CO_2 reduction projects co-ordinated · Ad-hoc funding
2	· Draft Climate Change Policy · Climate Change references in other strategies	· Ad hoc reviews of CM actions progress	· CO_2 reduction a part-time responsibility of a few department champions	· No CO_2 emissions data compiled · Energy data compiled on a regular basis	· Regular awareness campaigns · Staff given CM information on ad-hoc basis	· Ad hoc financing for CO_2 reduction projects	· Partial review of key, high level policies · Some financial quick wins made	· Ad-hoc schools projects to specifically reduce energy / CO_2
1 Start	· No policy · No Climate Change reference	· No CM monitoring	· No recognised CO_2 reduction responsibility	· No CO_2 emissions data compiled · Estimated billing	· No communication or training	· No specific funding for CO_2 reduction projects	· No alignment of policies for CO_2 reduction	· No CO_2 / energy reduction policy for schools

Appendix B: Definition of Projects

Project: Reference:	**Bootle Town Hall Draft Proofing** CMP 1
Owner (person)	Stephanie Hopkin
Department	Civic Buildings
Description	To identify and deploy draft proofing resources at Bootle Town Hall
Benefits	• Financial savings: £1,712 pa • Payback period: 9 years • CO_2 Emissions reduction:10.5 tonnes of CO2 pa • % of target: 0.12%
Funding	• Project cost: £15,414 • Operational costs: £0,00 • Source of funding: Salix • Project completed
Resources	• Savings were identified by the Energy & Environmental Team and works were carried out by Capita Symonds
Ensuring Success	• The deployment and maintenance of the draft proofing equipment (DPE) will be key to the success of these savings. • Risks to the success of this project include the unauthorised removal of the DPE or the DPE being allowed to fall into disrepair
Measuring Success	• The consumption levels for this location will be monitored to provide evidence of progression. Monitoring of consumption will take place annually
Timing	• Equipment was deployed winter 2010. It is expected that reductions will become evident in Winter / Spring 2011.
Notes	Consumption levels will be compared for corresponding levels of consumption annually.

Project: Reference:	**Bootle Town Hall Roof Insulation** CMP 2
Owner (person)	Stephanie Hopkin
Department	Civic Buildings
Description	To identify and deploy roof insulation resources at Bootle Town Hall
Benefits	• Financial savings: £ 2.012 pa • Payback period: 4.5 years • CO_2 Emissions reduction: 12.3 tonnes of CO2 pa • % of target: 1.4%
Funding	• Project cost: £9,136 • Operational costs: £0 • Source of funding: Salix • Project Completed
Resources	• Savings were identified by the Energy & Environmental Team and works were carried out by Capita Symonds
Ensuring Success	• The deployment and maintenance of the roof insulation equipment (RIE) will be key to the success of these savings. • Risks to the success of this project include the unauthorised removal of the RIE or the RIE being allowed to fall into disrepair
Measuring Success	• The consumption levels for this location will be monitored to provide evidence of progression. Monitoring of consumption will take place annually
Timing	• Equipment was deployed winter 2010. It is expected that reductions will become evident in Winter / Spring 2011.
Notes	Consumption levels will be compared for corresponding levels of consumption annually.

Project: Reference:	**Southport Town Hall Boiler House Insulation** CMP 3
Owner (person)	Stephanie Hopkin
Department	Civic Buildings
Description	To identify and deploy boiler house insulation resources at Southport Town Hall
Benefits	• Financial savings: £400 pa • Payback period: 5.6 years • CO_2 Emissions reduction: 2.5 tonnes of CO2 pa • % of target: 0.03%
Funding	• Project cost: £2,250 • Operational costs: £0 • Source of funding: Salix • Project Completed
Resources	• Savings were identified by the Energy & Environmental Team and works were carried out by Capita Symons
Ensuring Success	• The deployment and maintenance of the Boiler House Insulation equipment (BHIE) will be key to the success of these savings. • Risks to the success of this project include the unauthorised removal of the BHIE or the BHIE being allowed to fall into disrepair
Measuring Success	• The consumption levels for this location will be monitored to provide evidence of progression towards target. Monitoring of consumption will take place annually.
Timing	• Equipment was deployed winter 2010. It is expected that reductions will become evident in Winter / Spring 2011.
Notes	Consumption levels will be compared for corresponding levels of consumption annually.

Project: Reference:	**Insulation at Children's Homes & Hostels** CMP 4
Owner (person)	Stephanie Hopkin
Department	Civic Buildings
Description	To identify and deploy cavity wall and lost insulation at various children's homes & hostels
Benefits	• Financial savings: £6,002 pa • Payback period: 1.2 years • CO_2 Emissions reduction:36.8 tonnes of CO2 pa • % of target: 0.41%
Funding	• Project cost: £7,208 • Operational costs: £0,00 • Source of funding: Salix • Project completed
Resources	• Savings were identified by the Energy & Environmental Team and works were carried out by Capita Symonds
Ensuring Success	• The deployment and maintenance of the insulation equipment will be key to the success of these savings. • Risks to the success of this project include the unauthorised removal of the insulation equipment or the insulation equipment being allowed to fall into disrepair
Measuring Success	• The consumption levels for this location will be monitored to provide evidence of progression. Monitoring of consumption will take place annually
Timing	• Equipment was deployed winter 2010. It is expected that reductions will become evident in Winter / Spring 2011.
Notes	Consumption levels will be compared for corresponding levels of consumption annually.

Project: Reference:	**Crosby Town Hall Cavity Wall Insulation** CMP 5
Owner (person)	Christine Hall
Department	Head of Library & Information Services (Leisure)
Description	To identify and deploy cavity wall insulation resources at Crosby Civic Hall / Library
Benefits	• Financial savings: £11,093 pa • Payback period: 0.62 years • CO_2 Emissions reduction: 68 tonnes of CO2 pa • % of target: 0.76%
Funding	• Project cost: £6,857 • Operational costs: £0 • Source of funding: Capital • Project Completed Spring 2011
Resources	• Savings were identified by the Energy & Environmental Team and works were carried out by Capita Symonds
Ensuring Success	• The deployment and maintenance of the Cavity Wall Insulation equipment (CWIE) will be key to the success of these savings. • Risks to the success of this project include the unauthorised removal of the CWIE or the CWIE being allowed to fall into disrepair
Measuring Success	• The consumption levels for this location will be monitored to provide evidence of progression. Monitoring of consumption will take place annually
Timing	• Equipment was deployed spring 2011. It is expected that reductions will become evident in Winter / Spring 2012.
Notes	Consumption levels will be compared for corresponding levels of consumption annually.

Project: Reference:	**Variable Speed Drive (VSD) Dunes Splash World** CMP 6
Owner (person)	Scott Stevens
Department	Principle Operations Manager Leisure & Tourism
Description	To install Variable Speed Drives onto the pumping mechanisms at this location.
Benefits	• Financial savings: £14,956 pa • Payback period: 1.38 years • CO_2 Emissions reduction: 254.16 tonnes of CO2 pa • % of target: 0.91%
Funding	• Project cost: £20,685 • Operational costs: £0,00 • Source of funding: Capital • Project completed Spring 2011
Resources	• Savings were identified by a Carbon Trust Survey and works were carried out by Capita Symonds
Ensuring Success	• The deployment and maintenance of the VSD will be key to the success of this project. **Staff must be fully trained to operate this equipment** • Risks to the success of this project include the unauthorised removal of the VSD or the VSD being allowed to fall into disrepair. Operational staff must be fully trained in the use of this equipment.
Measuring Success	• The consumption levels for this location will be monitored to provide evidence of progression. Monitoring of consumption will take place monthly and reported annually.
Timing	• Equipment was deployed Spring 2011. It is expected that reductions will become evident in Summer 2011.
Notes	Consumption levels will be compared for corresponding levels of consumption annually.

Project: Reference:	**Vending Machine Timers Various Sites** CMP 7
Owner (person)	Stephanie Hopkin
Department	Civic Buildings
Description	To install 7 day timing mechanism onto the vending machines in order to insure switch off of vending machines between 19:00 – 07:00 and at weekends.
Benefits	• Financial savings: £2,939 pa • Payback period: 0.31 years • CO_2 Emissions reduction: 16 tonnes of CO2 pa • % of target: 0.18%
Funding	• Project cost: £912 • Operational costs: £0 • Source of funding: Salix • Project Completed Winter 2010 / 11
Resources	• Savings were identified by the Energy & Environmental Team and works were carried out by Capita Symonds
Ensuring Success	• The deployment and maintenance of the timing devices is essential to the success of this project. • Risks to the success of this project include lack of maintenance to the timing devices.
Measuring Success	• Staff from the energy & environmental management team will carry out annual audits to insure vending machines – timing devices are working
Timing	• Equipment was deployed winter 2010. Audits will be carried out from June 2011 .
Notes	Vending machine audits will be made available.

Project: Reference:	**Bootle Multi Story Car Park LED Lighting System** CMP 8
Owner (person)	Dave Marrin
Department	Transport Services Manager, Dept Built Environment
Description	To replace the 6th floor of the existing lighting system at the car park Bootle New Strand with LED as a trial and then roll out the scheme to the other 5 levels
Benefits	• Financial savings: £18,993 pa • Payback period: 3.16 years • CO_2 Emissions reduction:103.4 tonnes of CO2 pa • % of target: 1.16%
Funding	• Project cost: £60,000 • Operational costs: Unable to quantify the reduced operational and maintenance costs But expected to be highly reduced as this is 'fit and forget' technology. • Source of funding: Salix/Capital • Project completed
Resources	• Savings were identified by the Energy & Environmental Team and works were carried out by Capita Symonds
Ensuring Success	• The deployment and maintenance of the LED system is critical to the success of this project. • Risks to the success of this project include the unauthorised removal of the LED lights or lack of maintenance
Measuring Success	• The consumption levels for this location will be monitored to provide evidence of progression. Monitoring of consumption will take place annually
Timing	• Equipment was deployed Spring 2011. It is expected that reductions will become evident in Spring/Summer 2011.
Notes	Consumption levels will be compared for corresponding levels of consumption annually.

Project: Reference:	**High Reflective Street Bollards Replacement** CMP 9
Owner (person)	Paul Scott
Department	Senior Project Manager, Client Team
Description	To replace 255 illuminated street bollards with Highly Reflective Surface Bollards (HRSB), removing the need for illumination.
Benefits	• Financial savings: £4,918 pa • Payback period: 11.07 years • CO_2 Emissions reduction: 26.8 tonnes of CO2 pa • % of target: 0.3%
Funding	• Project cost: £54,422 • Operational costs: £0 • Source of funding: Capital (part) • Project part completed Winter 2010 / 11
Resources	• Savings were identified by the Energy & Environmental Team and works were carried out by Capita Symonds
Ensuring Success	• The deployment of the HRSB will remove the need for electrical illumination. Once deployed the HRSB will reflect car headlamps. • Risks to the success of this project include lack of maintenance and cleaning of the HRSB.
Measuring Success	• The reduction in energy use from this project will be included in the measuring of street lighting
Timing	• Equipment was deployed winter 2010.
Notes	

Project: Reference:	**Dunes Leisure Centre Motorised Pool Cover** CMP 10
Owner (person)	Scott Stevens
Department	Principle Operations Manager Leisure & Tourism
Description	To install motorised pool covers to the main and learner pools to retain heat in the swimming pool when not in use.
Benefits	• Financial savings: £9,972 pa • Payback period: 2.95 years • CO_2 Emissions reduction: 61.1 tonnes of CO2 pa • % of target: 0.69%
Funding	• Project cost: £29,393 • Operational costs: There some operational costs included in the energy bill • Source of funding: Capital • Project completed
Resources	• Savings were identified by a Carbon Trust survey and works were carried out by Capita Symonds
Ensuring Success	• The pool cover must be deployed when the pool is not in use to insure savings are achieved. • Risks to the success of this project include the non-deployment of this equipment
Measuring Success	• The consumption levels for this location will be monitored to provide evidence of progression. Monitoring of consumption will take place monthly and reported annually.
Timing	• Equipment was deployed winter 2010. It is expected that reductions will become evident in Winter / Spring 2011.
Notes	Consumption levels will be compared for corresponding levels of consumption annually.

Project: **Reference:**	**Street Lamps Variable Light Levels** CMP 11
Owner (person)	Paul Scott
Department	Senior Project Manager, Client Team
Description	To reduce the amount energy consumed by 6000 street lamps via the introduction of variable light levels
Benefits	• Financial savings: £39,792 pa • Payback period: 9.88 years • CO_2 Emissions reduction: 216.5 tonnes of CO2 pa • % of target: 2.43 %
Funding	• Project cost: £393,000 • Operational costs: Unable to quantify the reduced operational and maintenance costs. • Source of funding: Capital (part) • Project awaiting approval
Resources	• Savings have been identified by the Energy & Environmental Team and works will be carried out by Capita Symonds
Ensuring Success	• The deployment of this equipment will be closely monitored due to the potential to increase crimes rates etc. • Risks to the success of this project could include public or political perception of this project.
Measuring Success	• The reduction in energy use from this project will be included in the measuring of street lighting
Timing	• Awaiting approval.
Notes	

Project: Reference:	**Automatic Meters** CMP 12
Owner (person)	Ian Weller
Department	Energy & Environmental Management Team Dept of the Built Environment
Description	To install Automatic Meter Reading (AMR) equipment at buildings throughout Sefton. The AMR equipment will provide Half Hourly readings automatically
Benefits	• Financial savings: £415,954 pa • Payback period: 0.63 years • CO_2 Emissions reduction:2,288.3 tonnes of CO2 pa • % of target: 25.63%
Funding	• Project cost: £260,000 • Operational costs: There some operational costs included in the general energy bill • Source of funding: Capital, Finance, Funding • Project ongoing
Resources	• Savings have been identified by the Energy & Environmental Team and works will be carried out by Capita Symonds
Ensuring Success	• The deployment of the AMR equipment will be clearly time-tabled and will be monitored. Once deployed other projects will be developed to further reduce energy consumption • Risks to the success of this project include the malfunction of AMR, computer corruption
Measuring Success	• The installation of the AMR will be essential to Sefton Council's CMP. Monitoring of consumption will take place monthly and reported annually.
Timing	• The timetable for the completion of this project is April 2012
Notes	Consumption levels will be compared for corresponding levels of consumption annually.

Project: **Reference:**	**Illuminated Street Signs to LED** CMP 13
Owner (person)	Paul Scott
Department	Senior Project Manager Client Team
Description	There are 2686 illuminated street signs throughout Sefton. This project will replace the existing lighting with LED equivalent.
Benefits	• Financial savings: £18,267 pa • Payback period: 11.76 years • CO_2 Emissions reduction: 99.4 tonnes of CO2 pa • % of target: 1.11%
Funding	• Project cost: £214,900 • Operational costs: Unable to quantify the reduced operational and maintenance costs. • Source of funding: Capital (part) • Project is ongoing
Resources	• Savings were identified by the Energy & Environmental Team and works were carried out by Capita Symonds
Ensuring Success	• The time-table for the deployment of this equipment will be critical to the success of this project. • Risks to the success of this project the interruption of deployment.
Measuring Success	• The reduction in energy use from this project will be included in the measuring of street lighting
Timing	• Project is ongoing with 100 units deployed May 2011
Notes	

Project: **Reference:**	**Main Road Street Lights Replaced with LED** CMP 14
Owner (person)	Paul Scott
Department	Senior Project Manager Client Team
Description	The replacement of the main road street lighting to LED
Benefits	• Financial savings: £400 pa • Payback period: 25 years • CO_2 Emissions reduction: 2.2 tonnes of CO2 pa • % of target: 0.02%
Funding	• Project cost: £10,000 • Operational costs: Unable to quantify the reduced operational and maintenance costs. • Source of funding: Not Funded • Project Analysis taking place on the costs / benefits of this project
Resources	• Savings were identified by the Energy & Environmental Team
Ensuring Success	• Project confirmation needed • That cost of LED technology is not prohibitive to potential energy savings
Measuring Success	• The reduction in energy use from this project will be included in the measuring of street lighting
Timing	• TBC
Notes	The costs and scope for this project may be increased if further funding is secured and if the unit price per fitting is reduced making the payback period 7 years or below.

Project: **Reference:**	**PC Power Down Overnight & Weekends** CMP 15
Owner (person)	Linda Price
Department	Finance & Information Services
Description	To introduce computer software to power down all non essential computers over night & at weekends
Benefits	• Financial savings: £1,657 pa • Payback period: Immediate savings no payback • CO_2 Emissions reduction: 9 tonnes of CO2 pa • % of target: 0.1%
Funding	• Project cost: £0 • Operational costs: There are no costs in this project • Source of funding: N/A • Project Completed
Resources	• Savings were identified by the Energy & Environmental Team and works were carried out by Arvato
Ensuring Success	• Quarterly numbers of computers being left on will be requested from Arvato • Risks to the success of this project include the malfunction of software, computer corruption.
Measuring Success	• The monitoring of the amounts of computers being powered down.
Timing	• Project completed May 2011
Notes	.

Project: **Reference:**	**Variable Speed Drive (VSD) Bootle Leisure Centre** CMP 17
Owner (person)	Nicola Macaulay
Department	Principle Operations Manager Leisure & Tourism
Description	To install Variable Speed Drives to the pumping mechanisms at this location.
Benefits	• Financial savings: 20,516 pa • Payback period: 1.2 years • CO_2 Emissions reduction:111.6 tonnes of CO2 pa • % of target: 1.25%
Funding	• Project cost: £24,640 • Operational costs: £0,00 • Source of funding: Capital • Project completed Spring 2011
Resources	• Savings were identified by a Carbon Trust Survey and works were carried out by Capita Symonds
Ensuring Success	• The deployment and maintenance of the VSD will be key to the success of this project. **Staff must be fully trained to operate this equipment** • Risks to the success of this project include the unauthorised removal of the VSD or the VSD being allowed to fall into disrepair. Operational staff must be fully trained in the use of this equipment.
Measuring Success	• The consumption levels for this location will be monitored to provide evidence of progression. Monitoring of consumption will take place monthly and reported annually.
Timing	• Equipment was deployed Spring 2011. It is expected that reductions will become evident in Spring/Summer 2011/12.
Notes	Consumption levels will be compared for corresponding levels of consumption annually.

Project: Reference:	**Bootle Leisure Centre Motorised Pool Cover** CMP 18
Owner (person)	Nicola Macaulay
Department	Principle Operations Manager Leisure & Tourism
Description	To install a motorised pool cover to the main pool to retain heat in the swimming pool when not in use.
Benefits	• Financial savings: £10,909 pa • Payback period: 1.6 years • CO_2 Emissions reduction:66.9 tonnes of CO2 pa • % of target: 0.75%
Funding	• Project cost: £17,429 • Operational costs: There some operational costs included in the energy bill • Source of funding: Capital • Project completed
Resources	• Savings were identified by a Carbon Trust Survey and works were carried out by Capita Symonds
Ensuring Success	• The pool cover must be deployed when the pool is not in use to insure savings... • Risks to the success of this project include the non-deployment of this equipment
Measuring Success	• The consumption levels for this location will be monitored to provide evidence of progression. Monitoring of consumption will take place monthly and reported annually.
Timing	• Equipment was deployed winter 2010. It is expected that reductions will become evident in Winter / Spring 2011.
Notes	Consumption levels will be compared for corresponding levels of consumption annually.

Project: Reference:	**Meadows Leisure Centre Motorised Pool Cover** CMP 19
Owner (person)	Scott Stevens
Department	Principle Operations Manager Leisure & Tourism
Description	To install a motorised pool cover to retain heat in the swimming pool when not in use.
Benefits	• Financial savings: £10,890 pa • Payback period: 1.56 years • CO_2 Emissions reduction:66.8 tonnes of CO2 pa • % of target: 0.75%
Funding	• Project cost: £17,000 • Operational costs: There some operational costs included in the energy bill • Source of funding: Unknown • Project awaiting funding
Resources	• Savings have been identified by the Energy & Environmental Team and works will be carried out by Capita Symonds
Ensuring Success	• The pool cover must be deployed when the pool is not in use to ensure savings • Risks to the success of this project include the non-deployment of this equipment
Measuring Success	• The consumption levels for this location will be monitored to provide evidence of progression. Monitoring of consumption will take place monthly and reported annually.
Timing	• Expected 2011/12 if funding can be secured.
Notes	Consumption levels will be compared for corresponding levels of consumption annually.

Project: Reference:	**Sefton Council Travel Plan – Including Reducing Business miles, Tele Conferencing & Pool Car Scheme** CMP 20, 24, 28
Owner (person)	Lee Davis
Department	Strategic Transportation Planning Unit
Description	This project is aimed at reducing the need to travel and ensuring that if travel is necessary that a variety of options are fully available to all staff. Interventions include: • **Explore ICT alternatives** Tele conferencing Skype • **Promoting Carshare** Marketing package • **Promoting public transport** Establish Public Transport & Train / Cycle Policy Interest free loan for season ticket Information provision – travelhub • **Promoting cycling and walking** Establish Cycling for Work Policy Salary Sacrifice Bike Purchase Scheme Pool Bike Policy Cycle Training • **Promoting walking** Establish Walking for Work Policy • **Journey planning** Building to building Bespoke journeys
Benefits	• Financial savings: Unknown • Payback period: Unknown • • CO_2 Emissions reduction: Unknown • % of target: Unknown
Funding	• Project cost: Unknown • Operational costs: There some operational costs included in the general energy bill • Source of funding: Cycle Salary Scheme – 1 day per week, funded via NI savings • Project ongoing
Resources	• Cycle Salary Scheme – 1 day per week, funded via NI savings

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Ensuring Success	• The elements included in this project will be incorporated into Sefton Councils Travel Plan and will form part of future internal reporting. • Sefton Council have an excellent track record of delivering sustainable transport initiatives.
Measuring Success	• Reduction in miles and carbon claimed via mileage • Carbon saved by car share • Increase in easy tickets • Increase in uptake of salary sacrifice • Reductions will be reported annually
Timing	• Start date April 2012 • Completion date: 2014
Notes	

Project: Reference:	**Communications Campaign** CMP 21
Owner (person)	Ian Weller/Stephanie Jukes
Department	Energy & Environmental Management Team Dept of the Built Environment
Description	To develop a communications campaign promoting the CMP and the associated projects to reduce carbon
Benefits	• Financial savings: £415,954 pa • Payback period: 0.01 years • CO_2 Emissions reduction: 2288.3 tonnes of CO2 pa • % of target: 25.63%
Funding	• Project cost: £5,000 • Source of funding: Energy & environmental Management Team Budget • Project being developed and on going.
Resources	• Savings have been identified by the Energy & Environmental Team
Ensuring Success	• The communications campaign will be developed using a variety of media and equipment and will available to all officers and schools • Risks to the success of this project include lack of resources, failure to identify and engage audience, coordinated release of materials.
Measuring Success	• Recognition of the campaign brand, changes in staff behaviour and resulting reduction in energy consumption will be the measure of success.
Timing	Campaign is under development 2011/12 and will be project managed and reviewed
Notes	

Project: Reference:	**Refrigeration Rationalisation** CMP 22
Owner (person)	Stephanie Hopkin
Department	Civic Building
Description	To review the amounts of refrigerators in use across SMBC canteens and their contents with recommendations for removal / disposal
Benefits	• Financial savings: £245 pa • Payback period: Immediate savings • CO_2 Emissions reduction:1.3 tonnes of CO2 pa • % of target: 0.01%
Funding	• Project cost: £0 • Operational costs: Potential for removal costs • Source of funding: N/A • Project completed
Resources	• Savings were identified by the Energy & Environmental Team and works were carried out by the Civic Buildings Team.
Ensuring Success	• Insure that refrigerators remain switched off • Risks to the success of this project include staff turning refrigerators back on
Measuring Success	• Overall energy consumption will fall as a result of the project
Timing	• Project completed winter 2010.
Notes	.

Project: Reference:	**Fleet Driver Training** CMP 23
Owner (person)	Vin Donnelly
Department	Street Scene Services
Description	To introduce driver training to reduce fuel consumption, wear and tear of vehicles.
Benefits	• Financial savings: Un known • Payback period: Un known • CO_2 Emissions reduction: Un known • % of target: Un known
Funding	• Project cost: Unknown • Source of funding: Unknown • Project ongoing
Resources	• Savings were identified by Street Scene Services and training provided by an external company
Ensuring Success	• That new recruits also have the training • That fuel consumption is monitored of those who have received the training
Measuring Success	• Monitoring fuel consumption and total mileage of routes • Consumption levels will be compared for corresponding levels of consumption annually.
Timing	• Driver Training course was carried out Winter 2010/11
Notes	

Project: **Reference:**	**Fleet Zoning** CMP 25
Owner (person)	Gary Berwick
Department	Street Scene Services
Description	Refuse collection zones have been redefined in order to maximise efficiency of the route making fuel and resource savings. Stage two of the project will include re-procurement of low emission refuse vehicles
Benefits	• Financial savings: Un quantified • Payback period: Un quantified • CO_2 Emissions reduction: 12% savings in fuel consumption identified in stage one of project. This is expected to further increase in stage two. • % of target: Un quantified
Funding	• Project cost: • Operational costs: • Source of funding: • Project ongoing
Resources	• This is part of the transformation and efficiency savings for Street Scene Services
Ensuring Success	• That stage two of the project to successfully procure low emission vehicles is adequately funded. • That driver training is provided to all drivers to ensure maximum fuel savings.
Measuring Success	• Monitoring fuel consumption and total mileage of routes. Cleansing services manager has already reported a 12% reduction in fuel use since zoning began.
Timing	• Zoning of collections commenced 2011/12 • Re -procurement of vehicles expected June 2012
Notes	Consumption levels will be monitored for corresponding levels of consumption annually.

Project: Reference:	**School Boiler Replacement & Double Glazing Scheme** CMP 26
Owner (person)	Ivan Guy
Department	Children Schools & Families
Description	Schools have been assessed on their need for structural/technical repair using Capita Symonds Technical Forge database – this includes energy saving aspects such as replacement gas condensing boilers, lighting upgrades & double glazing. Assessing feasibility/options for biomass boilers.
Benefits	• Financial savings: £ 301,620 pa • Payback period: 8.29 years • CO_2 Emissions reduction: 1859.5 tonnes of CO2 pa • % of target: 20.72 %
Funding	• Project cost: £2,500,000 • Operational costs: Unknown • Source of funding: Unknown • Project scope costs and savings have been estimated based on expected savings for technology types.
Resources	• Project scope identified by Capita Symonds and Energy and Environmental Management Team
Ensuring Success	• Securing funding for staged roll out of project. • Where possible installing Biomass boilers to capitalise on maximum carbon savings and the Renewable Heat Incentive
Measuring Success	• The consumption at sites will be monitored to provide evidence of progression towards target. Monitoring of consumption will take place annually.
Timing	• To be reviewed as part of the CMP
Notes	

Project: Reference:	**Corporate Boiler Replacement & Double Glazing Scheme** CMP 27
Owner (person)	Ian Weller
Department	Energy and Environmental Management Team
Description	Corporate buildings have been assessed on their need for structural/technical repair using Capita Symonds Technical Forge database – this includes energy saving aspects such as replacement gas condensing boilers, lighting upgrades & double glazing. Assessing feasibility/options for biomass boilers.
Benefits	• Financial savings: £ 47,503 pa • Payback period: 21.05 years • CO_2 Emissions reduction: 289.4 tonnes of CO2 pa • % of target: 3.24 %
Funding	• Project cost: £1,000,000 • Operational costs: Unknown • Source of funding: Unknown • Project scope costs and savings have been estimated based on expected savings for technology types.
Resources	• Project scope identified by Capita Symonds and Energy and Environmental Management Team
Ensuring Success	• Securing funding for staged roll out of project. • Where possible installing Biomass boilers to capitalise on maximum carbon savings and the Renewable Heat Incentive
Measuring Success	• The consumption at sites will be monitored to provide evidence of progression towards target. Monitoring of consumption will take place annually.
Timing	• To be reviewed as part of the CMP
Notes	

Project: Reference:	**Proposed Photo Voltaic (fit) Scheme** CMP 29
Owner (person)	Mo Kundi
Department	Planning & Economic Regeneration
Description	To install Photo Voltaic equipment at a variety of suitable sites in Sefton and claim the Feed in Tariff
Benefits	• Financial savings: £ 59,248 pa • Payback period: 12.84 years • CO_2 Emissions reduction: 322.4 tonnes of CO2 pa • % of target: 3.61 %
Funding	• Project cost: £3,992,120 • Operational costs: £-251,632 (Expected electricity savings and income from Feed in Tariff for 25 years) • Source of funding: Unknown • Project is still in the planning stage
Resources	• Savings were identified by the Planning& Economic Regeneration/Energy & Environmental Team and works will be carried out by Capita Symonds
Ensuring Success	• Further feasibility research will need to be carried out to ensure sites are suitable for PV technology. • That the income from Feed in Tariffs remains high. • Ensuring electricity use at project sites pre-installation of PV's is managed, in order that renewable energy is not wasted.
Measuring Success	• Reduction in consumption on electricity bills as load is transferred to renewable source.
Timing	• Project is still in the planning stage and funding is yet to be secured. It is expected that this project will be rolled out towards the end of the 5 year plan.
Notes	

Project: **Reference:**	**Magdalen House Lighting Controls** CMP 30
Owner (person)	Stephanie Hopkin
Department	Civic Buildings
Description	To install light switches in the Magdalen House building , in addition to light sensors already in place
Benefits	• Financial savings: £2,923 pa • Payback period: 4.5 years • CO_2 Emissions reduction: 15.9 tonnes of CO2 pa • % of target: 0.18 %
Funding	• Project cost: £ 13,289 • Operational costs: £0 • Source of funding: Salix • Project Completed Spring 2011
Resources	• Savings were identified by the Energy & Environmental Team and works were carried out by Capita Symonds
Ensuring Success	• As part of the communications campaign staff will be made aware of the need to conserve energy and reduce costs • Staff refusal / unwilling to operate switches
Measuring Success	• Electricity bills will be compared to identify savings / reductions
Timing	• Completed March 2011
Notes	

Project: **Reference:**	**Eco Centre LED Lighting System** CMP 31
Owner (person)	Stephanie Hopkin
Department	Civic Buildings
Description	To replace the existing lighting system at the Eco Centre with LED
Benefits	• Financial savings: £2,300 pa • Payback period: 3 years • CO_2 Emissions reduction:12.5 tonnes of CO2 pa • % of target: 0.14%
Funding	• Project cost: £7,000 • Operational costs: Unable to quantify the reduced operational and maintenance costs. But expected to be highly reduced as this is 'fit and forget' technology. • Source of funding: Salix • Project: to be completed 2011/12
Resources	• Savings were identified by the Energy & Environmental Team and works were carried out by Capita Symonds
Ensuring Success	• The deployment and maintenance of the LED system is critical to the success of this project. • Risks to the success of this project include the unauthorised removal of the LED lights or lack of maintenance
Measuring Success	• The consumption levels for this location will be monitored to provide evidence of progression. Monitoring of consumption will take place annually
Timing	• Project is expected to be completed by April 2012.
Notes	Consumption levels will be compared for corresponding levels of consumption annually.

Project: **Reference:**	**Low Emissions Procurement Tool** CMP 32
Owner (person)	Stephanie Jukes / Brian Gibson
Department	Built Environment / Finance (Procurement)
Description	To practically implement a low emissions 'tool' within the working procurement process.
Benefits	• Financial savings: Unknown • Payback period: Unknown • CO_2 Emissions reduction: (Estimate) CO_2 Emissions reduction:100 tonnes of CO2 pa from 2012 • % of target: Unknown • Long tem mechanism for achieving carbon savings • Provides a mechanism for measuring carbon via procurement which currently isn't measured.
Funding	• Project cost: £24,000 • Source of funding: Low Emissions Partnership
Resources	• Procurement Officer will spend 6 months developing and implementing the tool within the existing procurement process • Air Quality and Sustainability Officer will provide support and guidance
Ensuring Success	Risks to the success of this project include • Staff changes within procurement team (Short term) – to address this, agreement has been gained from the Head of Finance that there will be staff committed • Time pressure on procurement staff, therefore lack of time to fully implement subsequent activities i.e. the sustainable procurement policy (Medium term) – Efforts will be made to do as much as possible during the 6 month project and subsequent networking, future funding opportunities will be considered. • Rogue procurement that does not go through the procurement teams, and may be high carbon or carbon savings may not be captured (Medium /long term) – Procurement team are addressing this issue. Partners (Capita /Arvato etc) will be encouraged to utilise the tool during the 6 month project. • Lack of funding by buyers to achieve the low carbon procurement option (short / medium term) - efforts will be made to consider whole life costings during the project which should help make a stronger argument for paying higher up front costs.

Measuring Success	• The tool will include a measure of CO2 saved where applicable. • The development of the tool will consider monitoring and how the measure of CO2 and whole life costings are incorporated into the existing procurement reporting process.
Timing	• The project is due to begin in September 2011 with completion 6 months later (by March 2012)
Notes	