

# Slough Borough Council Carbon Management Programme

## Carbon Management Plan (CMP) 2009 - 2014

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## Foreword from our Chief Executive and Political Sponsor

In October 2008, Slough Borough Council passed a motion for the Borough to become carbon neutral by 2020. This means we aim to reduce net greenhouse gas emissions to zero, reduce the Council's contribution to global warming and provide strong leadership to other local organisations, our communities and residents on the issue.

To address this commitment, the Council joined the Carbon Trust's Local Authority Carbon Management Programme in May 2009. This Programme has provided a focused process to develop the technical skills and organisational change needed for success. We are very grateful to the Carbon Trust for its experienced and dedicated support

This Carbon Management Plan sets out the projects and processes that will achieve a 40% reduction in carbon emissions by 2014. There is no doubt that these projects are challenging, but equally that we must achieve them if we are to reach full carbon neutrality. Along the way, the Council aims to make significant efficiency gains and be best prepared for an era of increasing energy and fuel prices. We are pleased to endorse this Carbon Management Plan and look forward to its successful implementation.



Ruth Bagley  
Chief Executive



Councillor Rob Anderson  
Leader of the Council

## Foreword from the Carbon Trust

Cutting carbon emissions as part of the fight against climate change should be a key priority for local authorities - it's all about getting your own house in order and leading by example. The UK government has identified the local authority sector as key to delivering carbon reduction across the UK in line with its Kyoto commitments and the Local Authority Carbon Management Programme is designed in response to this. It assists Councils to save money on energy and put it to good use in other areas, whilst making a positive contribution to the environment by lowering carbon emissions.

Slough Borough Council was selected in 2009, amidst strong competition, to take part in this ambitious programme. Slough Borough Council partnered with the Carbon Trust on this Programme in order to realise vast carbon and cost savings. This Carbon Management Plan commits the Council to a target of reducing CO<sub>2</sub> by 40% by 2014 and underpins potential financial savings to the Council of around £12 million.

There are those that can and those that do. Local authorities can contribute significantly to reducing CO<sub>2</sub> emissions. The Carbon Trust is very proud to support Slough Borough Council in their ongoing implementation of carbon management.



Richard Rugg  
Head of Public Sector, Carbon Trust

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## Management Summary

In October 2008, Slough Borough Council made a commitment to tackle climate change across its own operations by voting to become carbon neutral by 2020. The Authority joined the Carbon Trust's Local Authority Carbon Management Programme. This provided a focus for reducing carbon dioxide emissions across the Council's own operations through the development of our comprehensive Carbon Management Programme and Plan. The key strategic themes for our Programme include:

- Reducing CO<sub>2</sub> emissions from energy consumption in all Council buildings, schools<sup>1</sup>, street lighting, in-house and outsourced fleet transport and staff business travel.
- Fully embed carbon management within Council policies and procedures.
- Raising carbon management awareness among all staff and empower them to reduce energy consumption.
- Developing the interest and ability of schools to implement energy efficiency and renewable projects.
- Incorporating the highest possible energy efficiency specifications into new buildings, equipment and contracts.

Slough Borough Council's carbon emissions baseline for the year 2008/09 was 31,540 tonnes CO<sub>2</sub>. The Council's main CO<sub>2</sub> emission sources include buildings and schools (65%), street lighting (10%) and transport (25%).

**Table 1.1 – Summary of CO<sub>2</sub> emissions and costs for baseline year 2008/09**

	Total	Buildings	Street lights	Transport
Baseline CO <sub>2</sub> emissions (tonnes)	31,540	20,592	3,122	7,826
Baseline Cost (£)	£6,996,688	£3,506,090	£599,403	£2,891,195

Slough Borough Council will reduce carbon dioxide (CO<sub>2</sub>) emissions from its own operations by 40%, or 12,616 tonnes of CO<sub>2</sub> against a 2008/09 baseline, by April 2014.

To date a total of 19 projects have been completed since the Council's baseline year, saving the Council an *estimated* 2,294 tonnes of CO<sub>2</sub>. 2,294 tonnes of CO<sub>2</sub> represents 18.18 % of our overall carbon reduction target.

The estimated financial value at stake of the Council's Carbon Management Programme is £12.3 million. This is the projected cumulative saving that could be realised over the period 2009-2014 if emissions are cut by 40%.

In order to realise these savings, the Carbon Management Project Team has identified a number of additional short, medium and longer term opportunities to further reduce CO<sub>2</sub> emissions across the Council's operations. These have been quantified and prioritised using an evaluation tool supplied by the Carbon Trust and can be found in section 4 of this Plan<sup>2</sup>.



<sup>1</sup> For the purpose of this Plan, the term 'schools' includes all primary, secondary, special, pupil referral units and nurseries, Council run nurseries and Sure start centres.

<sup>2</sup> In quantifying these projects the Council will provide the most accurate cost and savings figures possible. Where quotations from contractors and providers were not possible, figures in section 4 are based on bench marks and assumptions provided by the Carbon Trust and others and which may change in the future. The Council's overall confidence level for the short term project

A forecast of the potential carbon and financial savings for the projects identified thus far is shown below:

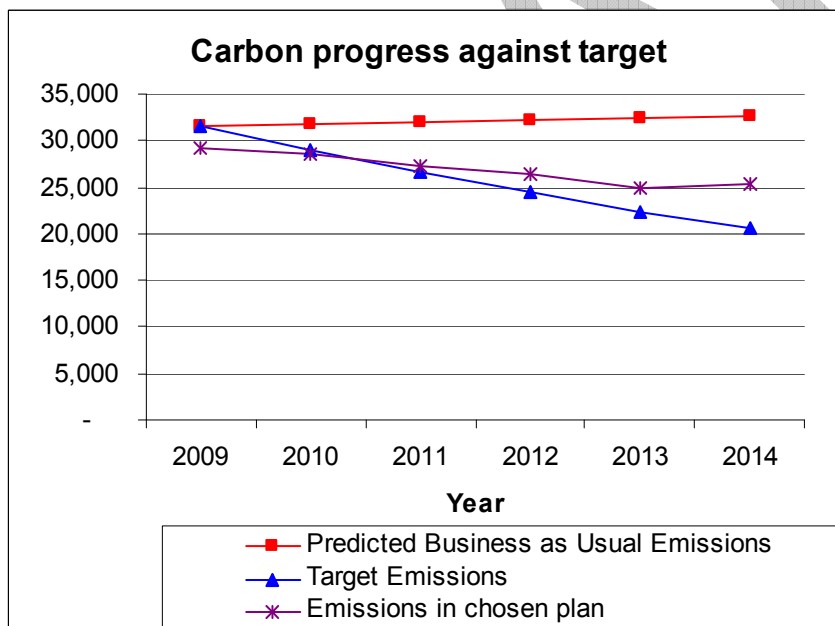
The annual cost and CO<sub>2</sub> savings for the Plan are shown below.

**Table 1.2 – Annual Cost and CO<sub>2</sub> Savings**

	2009/10	2010/11	2011/12	2012/13	2013/14	Total
Annual cost saving	£381,413	£179,024	£436,261	£206,744	£532,334	£1,711,786
Annual CO <sub>2</sub> saving (tonnes)	2,226	1,106.2	1,794.4	1,104.9	2,276.9	8508.4
% of target achieved	18%	9%	14%	9%	18%	67%
Cumulative % of target achieved	28%	26%	40%	49%	67%	-

The target for the Council is 12,616 tonnes of CO<sub>2</sub> saved by April 2014 against a 2008/09 baseline of 31,540 tonnes of CO<sub>2</sub>. The projects identified, quantified and costed so far are estimated to deliver a saving of 8,508 tonnes CO<sub>2</sub>, accounting for 67% of the target.

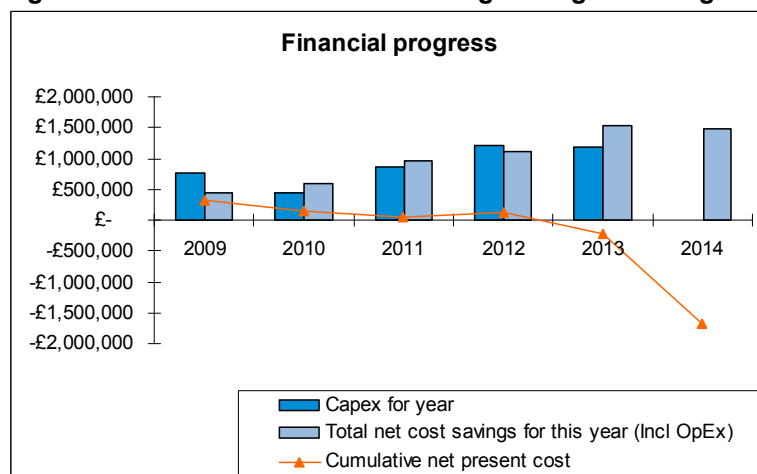
**Figure 1.1 – Forecast of Carbon Progress against Target**



The Council believes that the remaining 33% of carbon savings will be found through identifying and implementing new projects throughout the life of the Programme. Achieving the target will therefore require the on going commitment from members, the Carbon Management Programme Board and Project team members.

identified in this plan is therefore relatively high (approx. 95%) while we estimate that the figures used for the mid term projects are approx. 65% accurate. Quantification work will continue to refine these assumptions throughout the life of the Programme.

**Figure 1.2 – Forecast of Financial Progress against Target**



The total *provisional* amount of capital, revenue and external investment estimated to realise this Plan’s carbon and financial savings is summarised below:

**Table 1.3 – Provisional Funding Schedule**

	2009/10	2010/11	2011/12	2012/13	2013/14	Total
Estimated capital cost	£747,416	£439,301	£672,485	£1,145,677	£954,366	£3,959,245
Estimated revenue cost	£16,125	£35,627	£259,106	£7,000	£410,635	£719,493
External funding	£0	£5,000 <sup>3</sup>	£0	£188,000 <sup>4</sup>	0	£193,000
Total	£763,541	£479,928	£931,591	£2,272,268	£1,364,971	£4,871,738

These figures are *indicative* and will depend on actual funding streams for each of the projects included in this Plan being identified, prioritised and confirmed throughout the life of the Programme.

It will also be necessary to supplement the Council’s existing capital resources with additional funding and external grants (where applicable) to enable us to fulfil both our corporate priorities and our commitment to reducing carbon emissions. All outside sources of funding will be explored.

<sup>3</sup> LSP Grant

<sup>4</sup> LSP Grant



## 1.0 Introduction

The purpose of this Carbon Management Plan is to establish a framework for carbon management in Slough Borough Council and set out a programme of actions to reduce CO<sub>2</sub> emissions from the Council operations up to and including April 2014.

The benefits to the Council of having this Plan are:

- that it will lead to a reduction in the costs of our energy usage
- demonstrate our leadership
- it will help us comply with legislation and
- protect the environment.

This Carbon Management Plan is a result of the Council's participation in the Local Authority Carbon Management Programme (Phase7) run by the Carbon Trust from May 2009 to March 2010. The Carbon Trust's Programme consists of five stages:

- 1) Mobilising the organisation by involving key players, building the team and setting the structure and scope
- 2) Establishing forecasts and targets using the Council's NI185 CO<sub>2</sub> emissions baseline data for 2008/9
- 3) Identifying, quantifying and prioritising the risks and prioritising carbon reduction projects/actions
- 4) Developing a cost effective Carbon Management Plan which supports and enables organisational change
- 5) Implementing the Plan by embedding carbon reduction into our daily business

**Implementation of this Plan will commence in June 2010, following the Council's approval of this document, by Cabinet that month. It will be reviewed and revised annually to reflect progress made and new priorities identified and goes some way to implementing the Council's motion of October 2008 to become carbon neutral by 2020.**

The Carbon Trust will continue to provide technical and other support to Slough over the coming years to assist this Plan's implementation.



## 2.0 Carbon Management Plan

### 2.1 Context and Drivers for Carbon Management

Climate change is the greatest challenge facing the world today. It is a global issue that demands a global response. All countries must be part of the solution. The UK plays a leading role at the international level. The government is working through the European Union, G8 and UN Framework Convention on Climate Change (UNFCCC) processes to find ways to reach global agreement on action to avert dangerous climate change.

The UK Government's goal is to stabilise atmospheric greenhouse gas levels to avoid dangerous climate change, and to adapt to the climate change that is unavoidable. The UK Government and the EU consider that global warming must be limited to no more than 2°C temperature rise above pre-industrial times to avoid dangerous impacts.

Crucial to achieving this goal is securing a global agreement to a realistic, robust, durable and fair framework for the post-2012 period, when the first set of targets under the Kyoto Protocol expires. The UK Government is therefore aiming to reach an ambitious agreement at UNFCCC Conference of Parties at Copenhagen in December 2009, supported by effective domestic action (under the Climate Change Act 2008) and through the EU (under the 2020 package).

The UK Climate Change Programme - the 2006 Programme is the UK's key strategy for its work on tackling climate change. It sets out the policies and measures which the UK is using to cut its emissions of greenhouse gases. It also explains how the UK plans to adapt to the impacts of climate change.

The Climate Change Act 2008 introduces the world's first long term legally binding framework to tackle the dangers of climate change and serves to further strengthen the Government's powers in attaining the goal of becoming a low carbon economy. The main components of the Act are:

- To give statutory force to the Government's targets for cutting CO<sub>2</sub> emissions by 80% by 2050 and 34% by 2020, compared to a 1990 baseline,
- To introduce a system of five-year carbon budgets,
- To create an expert committee of climate change to advise Government.

The UK Government wants local authorities to set a leading example on climate change. Progress in local areas is being monitored against a comprehensive range of legislative drivers, including:

- **Carbon Reduction Commitment:** The CRC Energy Efficiency Scheme (CRC) is a new regulatory "cap & trade" emissions trading scheme to improve energy efficiency of large public and private sector organisations. It is a mandatory scheme that aims to improve energy efficiency and reduce the amount of carbon dioxide (CO<sub>2</sub>) emitted in the UK. The CRC will affect large organisations in both the public and private sector whose total electricity consumption is greater than 6,000MWh or approximately £500k. Organisations that meet the qualification criteria, which are based on how much electricity they were supplied in 2008, will be obliged to participate in CRC. Participating organisations will have to monitor their emissions and purchase allowances, initially sold by Government, for each tonne of CO<sub>2</sub> they emit. The more CO<sub>2</sub> an organisation emits, the more allowances it has to purchase. So there is a direct incentive for these organisations to reduce their emissions.

- In 2008/9, Slough Borough Council's "qualifying" electricity consumption was in excess of 10,000 MWh, so we shall be participating in the CRC from April 2010. As well as reducing our carbon emissions, by increasing energy efficiency this scheme should save us money by reducing our energy bills. These savings could be well in excess of the costs of participating in the scheme. In addition, the better an organisation performs in terms of reducing its emissions, the higher it will appear in the annually published league table, showing the comparative performance of all participants. This in turn provides a further benefit: all the revenue raised from selling allowances is 'recycled' back to participants, and the league table position affects how much of the revenue each organisation receives.
- The Council is currently drawing up a separate CRC participant action plan to co-ordinate activity around its forthcoming participation in this scheme. This Plan will help the Council to fulfill its obligations under the CRC by demonstrating how we propose to improve our energy efficiency and reduce the amount of CO<sub>2</sub> we emit over time.

In April 2008, the Government introduced two National Indicators specific to CO<sub>2</sub> reduction:

- **National Indicator (NI) 185 – percentage CO<sub>2</sub> reduction from Local Authority (LA) operations:** The public sector is in a key position to lead on efforts to reduce CO<sub>2</sub> emissions by setting a strategic example to the private sector and the communities they serve. NI 185 requires local authorities to calculate CO<sub>2</sub> emissions from buildings (including schools) and street lighting (as for CRC), but to also include emissions from transport fleets and business transport, and contracted-out services. This is the same data set that has been used to prepare this Carbon Management Plan's carbon emissions baseline.
- **NI 186 – per capita CO<sub>2</sub> emissions in the LA area:** Local authorities are uniquely placed to provide vision and leadership to local communities by raising awareness and influencing behaviour change. NI 186 measures the percentage reduction in CO<sub>2</sub> per capita from business (including public sector), domestic housing and road transport across the whole LA area. A separate Action Plan<sup>5</sup> is being prepared to coordinate CO<sub>2</sub> reduction activity across the Borough and meet NI 186 targets. This Carbon Management Plan is an important component of the Council's overall Climate Change Strategy and its delivery plan for NI 186 (reducing CO<sub>2</sub> across the local authority area).
- **Display Energy Certificates:** All public sector buildings with a floor space over 1,000 m<sup>2</sup> are legally required, from 1<sup>st</sup> January 2009, to show a Display Energy Certificate (DEC) in a prominent position, usually in the foyer. DEC's rate a building's energy efficiency from A to G and usually include a recommendation report which suggests how a building's rating may be improved. Slough Borough Council has produced DEC's for 43 buildings over 1000 m<sup>2</sup> (including 33 schools). DEC's are being used to determine which buildings might be prioritised for energy efficiency projects. Display Energy certificates at each site will be updated regularly.
- **Energy Costs:** UK Energy and fuel markets are extremely volatile and saw energy prices increasing by well over 50% between 2004 and 2009. Power prices at the start of 2009 reacted to news of British Energy Units, this coupled with overseas contractual disputes and seasonally low temperatures in Europe provided support for prices. In order to reduce our annual gas and electricity charges, Slough Borough Council regularly reviews the procurement of its energy using a variety of options to try to get the

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<sup>5</sup> NI 186 is part of Slough's Local Area Agreement and commits the Borough to a 9% reduction in CO<sub>2</sub> emissions by 2011 off a 2005 baseline year. The most recent data shows a 3% reduction in CO<sub>2</sub> emissions between 2005 and 2007. Data is produced two years in arrears, and is calculated by central Government. Slough has amongst the lowest per capita emissions in the UK from transport and housing, but high emissions from business due to the concentration of businesses in the area.

best 'deal available' – often some way in advance. We have recently joined a consortium with five other Berkshire local authorities to procure our energy through the NHS Procurement and Supply Agency (PASA). Under the terms of this contract, Slough Borough Council has selected a locked purchase option, which means that for gas we are expecting a 25% decrease in costs year-on-year based on market conditions, with an expectation of this not worsening beyond a 22% decrease and for electricity (taking into consideration the value of electricity already purchased by the service provider within the contract) indications are that we can expect an average 15% decrease for our Half Hourly Electricity and 17% for Non Half Hourly electricity. The Climate Change Levy (CCL) remains at its current levels.

- In August 2009 Slough Borough Council signed the Nottingham Declaration on Climate Change. The declaration committed the Council to supporting Government CO<sub>2</sub> emission reduction targets and producing local plans to address the causes and impacts of climate change. A Climate Change Strategy for Slough Borough Council will be published later in 2010.

## 2.2 Our Low Carbon Vision – Where Do We Want to Get To?

***Slough Borough Council will be a low carbon authority by 2020, demonstrating good practice in its own operations and providing leadership on carbon reduction across the Borough.***

In order to kick start this process we aim to reduce our own energy usage by 40% by 2014 by improving the energy efficiency of our buildings and embedding a low carbon culture across the organisation. This low carbon approach is being driven through Slough's Sustainable Community Strategy and underpins the Council's aim that Slough "is a cleaner, greener place to live, work and play" for all our residents.

## 2.3 Strategic Themes

This Plan is intended to be a dynamic document which is continuously revised throughout the life of the Programme to reflect new opportunities to reduce the amount of CO<sub>2</sub> generated by the Council. The majority of the Council's activity will be focused around several key strategic themes, including:

- Reducing CO<sub>2</sub> emissions from energy consumption by all Council and outsourced buildings, schools, street lighting, fleet transport and staff business travel.
- Fully embedding carbon management within Council policies and procedures.
- A clear and effective framework of policy and corporate approach needs to be developed so that everyone in the Council is clear about how they should approach operations with energy as a key consideration. This will involve changing existing policies or procedures, and the creation of new policies to embed carbon management into the day to day operations of all services. This will include relevant policies in the Sustainable Construction and Procurement.
- Raising carbon management awareness amongst all staff and empowering them to reduce energy usage through targeted campaigns - changes in staff behaviour is essential if our targets are to be achieved.
- Developing the capacity of schools to implement energy efficiency and renewables projects - there are a significant number of potential low carbon and renewable energy generation projects being investigated which can contribute to the carbon reduction target.
- Incorporating the highest possible energy efficiency specifications into procurement of new buildings, contracts and equipment.

## 2.4 Targets and Objectives

***Slough Borough Council aims to reduce CO<sub>2</sub> emissions from its own operations by 40% from a 2008/09 baseline by April 2014.***

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### 3.0 Emissions Baseline and Projections

#### 3.1 Scope

Slough Borough Council’s emissions baseline is based on the scope set out for measuring NI185 CO<sub>2</sub> reduction from local authority operations. This is defined as:

*“NI 185 is to include all CO<sub>2</sub> emissions from the delivery of local authority functions. In terms of the meaning of the word in legislation “function” covers both the duties and powers of an authority. It covers all an authority’s own operations and outsourced services. Even if the services are being provided by an external body (e.g. a private company) they remain the function of the authority. There is no exhaustive list of the powers and duties of an authority in legislation, as the term function is taken to understand what that means for the relevant authorities. However, it should be clear that schools and business travel are included within the definition. However, social housing provided by the authority or a third party is not included within the scope of the indicator. Employee commuting is also not included”.*

The focus has been on capturing the authority’s main emissions sources to an acceptable level of accuracy. Where data quality is poor or very difficult to obtain proxies have been used and the methodology recorded. The following list gives the detailed scope of what is currently included and excluded<sup>6</sup> in the Council’s baseline data:

Included	Excluded
Energy use – all Council owned buildings including corporate buildings, nurseries, primary, secondary and special schools	Housing data (except residential care homes owned and operated by the Council)
Street and park lighting	Volume of water used by Council buildings. This information is not available for all buildings
Energy use in Sure Start Centers	Any other item you wish to include (e.g. embodied CO <sub>2</sub> of paper). This is because it is difficult information to gather with little direct control over production
Energy use in Council owned premises occupied by or community associations where SBC pay the energy bills and social services transport.	Council-owned premises leased to local businesses or community associations that pay their own energy bills (except for Slough Community Leisure, who operate a number of leisure centres under contract and on behalf of the Council)
Council owned community centers	Waste produced by Council buildings (tonnes). There is insufficient detailed information on waste tonnage to include this at present. Other programmes are in place to reduce the amount of waste produced by the Council
The Crematorium	
Energy use in non Council owned buildings providing outsourced services to the Council including: <ul style="list-style-type: none"> <li>○ Slough Enterprise (waste, street cleaning and parks),</li> <li>○ Interserve (facilities management,</li> </ul>	

<sup>6</sup> This list is not fixed and will change year on year as the scale of the Council’s estate fluctuates.



<ul style="list-style-type: none"> <li>including repairs and maintenance),</li> <li>o People 1<sup>st</sup>7 (the electricity used in communal areas of People 1<sup>st</sup> blocks of flats for stairwell lighting and lifts is also included, although the energy used within individual homes is excluded)<sup>8</sup>,</li> <li>o APCOA (car parking),</li> <li>o Apetito (meals on wheels),</li> <li>o Scolarest (schools catering),</li> <li>o Southern Cross,</li> <li>o BUPA,</li> <li>o Care UK (and other smaller care home providers),</li> </ul>	
home-to-school transport	
Fleet vehicles	
Business travel	
Transport data for outsourced services (fleet and business travel)	

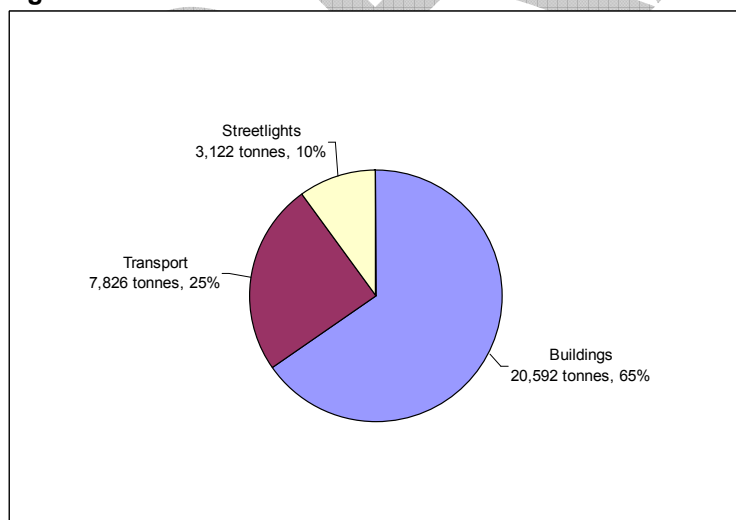
### 3.2 Baseline

Using the above emission sources, Slough Borough Council's baseline for the 2008/09 financial year was 31,540 tonnes CO<sub>2</sub>. Table 3.1 and Figure 3.1 below show that (65%) of this figure originated from our buildings, (25%) from transport and (10%) from street lighting.

**Table 3.1 – Baseline carbon emissions and costs 2008/09**

	Total	Buildings	Street lighting	Transport
Baseline CO <sub>2</sub> emissions (tonnes)	31,540	20,592	3,122	7,826
Baseline Cost (£)	£6,996,688	£3,506,090	£599,403	£2,891,195

**Figure 3.1 – Baseline carbon emissions 2008/9**

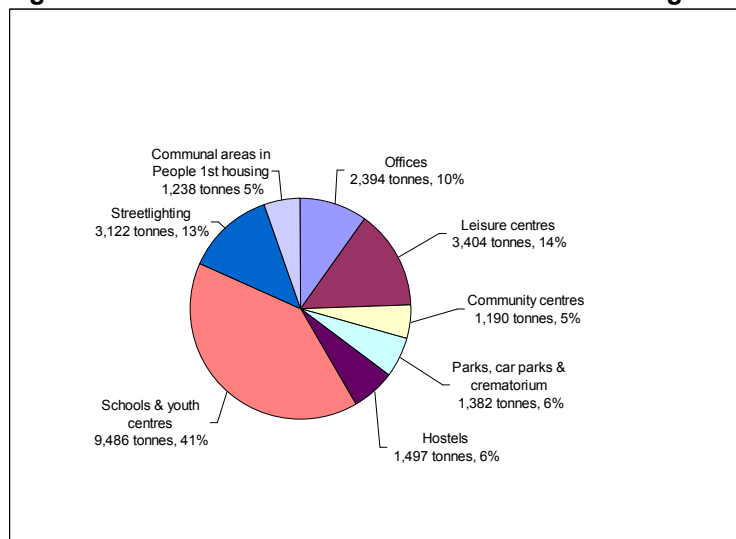


<sup>7</sup> People 1st are an Arms Length Management Organisation established by the Council to manage its Council Housing stock. As such, it is wholly owned subsidiary of Slough Borough Council

<sup>8</sup> Correct at time of writing. However, Slough Borough Council is currently holding a consultation of tenants and leaseholders across the Borough on how Council's housing should be managed in the future which may affect People 1<sup>st</sup>'s status as a contracted out service. Any changes to this organisations status as a result of this consultation will be reflected in later reiterations of this Plan.

Analysis of our buildings CO<sub>2</sub> emissions by different type (see Figure 3.2 below) shows that schools and the youth services account for 41% of the Council's emissions, leisure centres 14%, street lighting 13%, offices 10%, hostels 6%, parks, car parks and the crematorium 6%, whilst our community centres (and the communal areas of People 1<sup>st</sup> housing) 5%.

**Figure 3.2 – Baseline carbon emissions from buildings**



The Council's buildings emissions by Directorate can further be summarised as follows:

- Education & Children's Services Directorate contribute to 41% of our CO<sub>2</sub> emissions (through schools and youth centres);
- Community & Wellbeing Directorate is responsible for 25% through our leisure centres, hostels and community centres;
- Green & Built Environment Directorate is responsible for 24% through street lighting, parks, car parks, the Crematorium and the communal areas of People 1<sup>st</sup> housing;
- leaving the Improvement and Development and Resources Directorate's responsible for the remaining 10% of emissions through our offices.

A simple analysis of our 2008/09 data by percentage contribution would suggest that our greatest savings in carbon emissions might be achieved across our schools estate<sup>9</sup>. School energy and fuel costs have seen a dramatic rise in recent years due to an

- enlarging estate
- increased use of IT
- increased use of air conditioning; and
- increased opening hours and a broader curriculum

and experience suggests that this trend is not expected to change in the foreseeable future.

The Government would like all schools to be sustainable schools by 2020 - not just by promoting sustainable development through their curriculum but also through the effective energy management of their estate and engagement with local communities. School participation in this plan and the Council's CRC will therefore be crucial to our achieving our 2014 target and represents an exciting opportunity for us to work together to achieve mutual benefit.

<sup>9</sup> Local Authorities are responsible for all maintained schools in their area although PFI operated schools, where the operator pays the energy bill directly are not part of the Local Authority.



### 3.3 Projections and Value at Stake

If the Council does nothing to reduce the amount of our carbon it emits it is likely that we will continue to emit carbon at current or increased levels. Two scenarios are outlined in this section to assess the financial cost or value of this Carbon Management Programme to Slough Borough Council: a Business as Usual (BAU) approach compared to a Reduced Emissions Scenario (RES), based on the 40% target to be achieved. In both scenarios, it is assumed there is

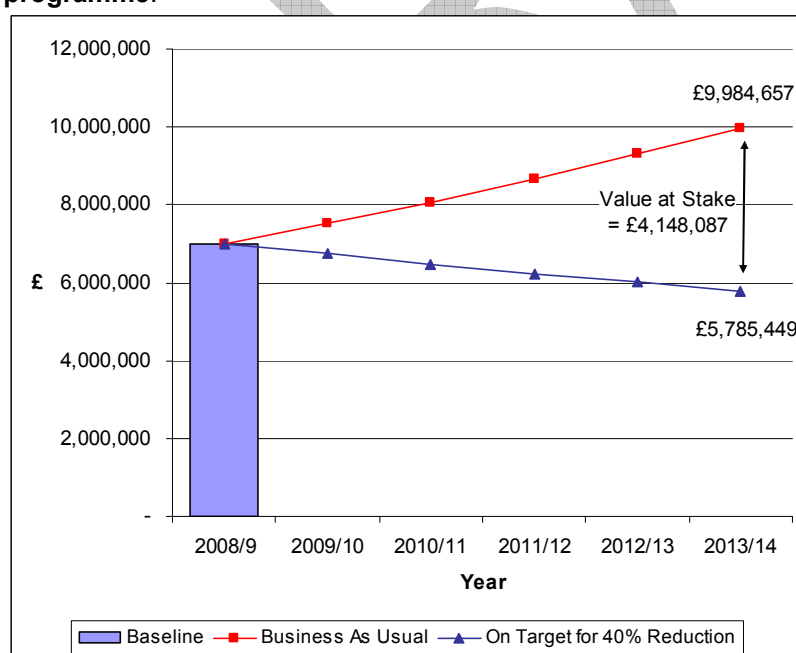
- (i) a 0.7% annual increase in demand for buildings, street lighting and transport (based on Carbon Trust models); and
- (ii) a 5.4% annual increase in energy prices. Energy price forecasts are taken from middle of the road UK Government forecasts (DTI/DBERR EP68), based on International Energy Agency data.

The difference in cost to the Council between the business as usual (BAU) scenario and the reduced emissions scenario (RES) set out in this Plan is called the Value at Stake (VAS). If this Carbon Management Plan successfully achieves its 40% target, the cumulative Value at Stake to Slough Borough Council by March 2014 would be £12,261,413.

**Table 3.2 – Financial Value at Stake (VAS)\* of Carbon Management Programme**

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
BAU Total	£6,996,687	£7,509,339	£8,061,206	£8,655,413	£9,295,342	£9,984,657
RES Total	£6,996,687	£6,732,905	£6,480,396	£6,238,643	£6,007,150	£5,785,449
VAS Annual	£0	£776,434	£1,580,809	£2,416,770	£3,288,192	£4,199,208
VAS Cumulative	£0	£776,434	£2,357,243	£4,774,013	£8,062,205	£12,261,413

**Figure 3.3 illustrates the cost to the Council of not embarking on a carbon reduction programme.**



The cumulative Carbon Value at Stake to Slough Borough Council is estimated to be 43,757 tonnes of CO<sub>2</sub> over the lifetime of the project.

**Table 3.3 – Carbon Value at Stake (VAS)<sup>10</sup> of Carbon Management Programme (tonnes)**

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
BAU Total	31,540	31,761	31,983	32,207	32,432	32,659
RES Total	31,540	28,477	25,711	23,214	20,959	18,924
VAS Annual	0	3,284	6,272	8,993	11,473	13,735
VAS Cumulative	0	3,284	9,556	18,549	30,022	43,757

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<sup>10</sup> It should be noted that the cumulative Value at Stake is an estimate based upon the assumptions specified in the Business as Usual and Reduced Emissions scenarios. It shows that total potential savings, or cost avoidance, that could accrue to Slough Borough Council by meeting its CO<sub>2</sub> reduction target.

## 4.0 Carbon Management Projects

This section lists the individual actions and projects that have been identified thus far and could be undertaken as part of Slough Borough Council's Carbon Management Programme. Project Identification was developed by a variety of means: an Opportunities Workshop was hosted with the Carbon Trust Advisers and the Programme Board and Project Team were invited to suggest projects for inclusion in the Programme. Projects were then prioritised using the Carbon Trust's Rapid Assessment Tool according to their Ease and Effect to gauge the indicative costs and savings associated with each project as well as assess their energy reduction potential, speed of payback and ease of implementation<sup>11</sup>.

The projects range from those that have already been completed since our baseline year (section 4.1), to those that are fully costed out and funded (section 4.2), to those that have been identified for further analysis in a later stage of Programme (sections 4.3, 4.4 & 4.5). A business case for each project will be captured on an individual project template – an example of which is presented in Appendix A.

### 4.1 Current and completed projects

This section summarises the projects that are already underway or have been completed since our baseline year (2008/09). 19 projects have been completed to date, saving the Council an **estimated** 2,294 tonnes of CO<sub>2</sub>. 2,294 tonnes of CO<sub>2</sub> represents 18.18 % of our overall carbon reduction target.

Ref	Project	Lead	Estimated Capital cost	Estimated Revenue cost	Estimated Annual financial Saving <sup>12</sup>	Estimated CO2 savings in yr 1 tonnes	Pay back	% of Target	Year
1	Building fabric – Roof and loft insulation - James Elliman School	Paul Butler	£2,500	£0	£73	0.6	34	0.00%	2009/10
2	Building fabric - Secondary glazing -2 Schools (Westgate & Godolphin Junior)	Paul Butler	£10,000	£0	£1,368	11.5	7.3	0.09%	2009/10
3	Combined Heat & Power - Montem Leisure Centre	Slough Community Leisure	£20,000	£0	£20,000	409.9	0.2	3.34%	2009/10
4	Communications - Awareness raising campaign - Offices	Kathryn Best	£0	£300	£2,139	11.5	0.1	0.09%	2009/10
5	Electrical equipment - IT - Virtualisation/thin computers - Offices	Chris Wintermute	£350,000	£0	£251,349	1210.6	1.4	9.60%	2009/10
6	Building rationalisation - reduced occupancy at Town Hall	Charan Dhillon	£0	£0	£17,945	150.9	0	1.20%	2009/10

<sup>11</sup> Future proofing our Carbon Management Plan: These details (including the assumptions for cost, carbon saving and capital cost for each project) have been saved separate spreadsheet for colleagues use in the future.

<sup>12</sup> This is the estimated financial savings (the reduction in energy (electric, gas, oil/diesel, petrol etc) converted to £'s) that are likely to accrue to the Council as a result of the Project being undertaken.

7	Street lighting - Bulb replacement with high pressure sodium	Ken Mann	£0	£450	£198	1	2.3	0.01%	2009/10
8	Roadside Bollards - Bulb replacement with CFL & photocells	Dave Hall	£0	£12,375	£586	2.8	21.1	0.02%	2009/10
9	Transport - Fleet - Low carbon vehicles - Street-cleansing trucks	Enterprise	£294,090	£3,000	£15,910	26	18.6	0.21%	2009/10
27	Timers on water heaters - SMP	Geoff Lowe	£290	£0	£1,944	9.4	0.1	0.07%	2009/10
39	Lighting - ground floor and 2nd floor west St Martin's Place	Geoff Lowe	£15,700	£0	£373	1.8	dnpb	0.01%	2009/10
45	Closure of portacabins and canteen at town hall	Paul Butler	£0	£0	£36,943	177.9	0	1.41%	2009/10
47	Purchase and maintenance of two bicycles, safety and security equipment, 4 lockers, bike maintained and relocation of cycle lockers for staff use while on official business	Rub Nawaz	£4,836	£0	£58	0.1	dnpb <sup>13</sup>	0.00%	2009/10
55	Wexham House Care home closure	Paul Butler	£0	£0	£7,871	66.2	0	0.52%	2009/10
64	Closure of New Beech	Paul Butler	£0	£0	£12,137	58.5	0	0.46%	2009/10
69	Closure of Long Croft Elderly Peoples home	Paul Butler	£0	£0	£7,718	47.1	0	0.37%	2009/10
71	New Boiler controls/ BMS/heating replacements system for Lynch Hill Primary school	Paul Butler	£50,000	£0	£4,801	40.4	10.4	0.32%	2009/10
13	Electrical equipment - IT - Virtualisation/thin computers - Offices	Chris Wintermute	£5,931	£0	£10,638	51.2	0.6	0.41%	2010/11
62	Electrical equipment - IT - LCD flat screens	Chris Wintermute	£4,000	£0	£139	0.7	28.7	0.01%	2010/11

## 4.2 Planned & Funded Projects

This section summarises each of the projects which are planned to take place and which have funding allocated. So far 12 projects have been approved for implementation. These projects are **estimated** to save the Council 424.9 tonnes of CO<sub>2</sub>. 424.9 tonnes of CO<sub>2</sub> represents 3.37% of our overall carbon reduction target.

<sup>13</sup> dnpb means does not pay back within a realistic timescale

Ref	Project	Lead	Estimated Capital cost	Estimated Revenue cost	Estimated Annual Financial Saving	Estimated CO2 savings in yr 1 tonnes	Pay back	% of Target	Year
11	Communications – Awareness raising campaign – Offices	Kathryn Best	£0	£5,000	£4,418	37.1	1.1	0.29%	2010/11
12	Communications - Awareness raising campaign - Pilot project at 3 Primary Schools	Kathryn Horsepool	£0	£5,000 <sup>14</sup>	£2,490	13.2	2	0.10%	2010/11
15	HVAC - Heating control adjustment - All Buildings	Paul Butler	£20,000	£0	£34,217	287.7	0.6	2.28%	2010/11
16	Renewables - Photovoltaics - Powering ventilation fans - James Elliman	Paul Butler	£34,000	£0	£1,115	5.4	30	0.04%	2010/11
17	Street lighting: Roadside Bollards - Compact fluorescent lighting & photocells	Dave Hall	£0	£12,375	£3,262	15.7	2.8	0.12%	2010/11
24	Building fabric – Pipe work insulation – Foxborough Primary School	Foxborough Primary School	£1,000 <sup>15</sup>	£0	£321	2.7	3.1	0.02%	2010/11
38	Lighting – Automatic control – Foxborough Primary School	Foxborough Primary School	£3,600 <sup>16</sup>	£0	£1,961	9.4	1.8	0.07%	2010/11
70	Closure of Phoenix House Day Centre	Paul Butler	£0	£0	£2,607	15.9	0	0.13%	2010/11
85	New Pool Bike Booking system at SMP	Rub Nawaz	£0	£0	£21	0.1	0	0.00%	2010/11
72	Roadside Bollards - Compact fluorescent lighting & photocells	Dave Hall	£0	£12,375	£3,262	6.2	3.8	0.12%	2011/12
78	Building rationalisation - reduced occupancy at Town Hall	Charan Dhillon	£0	£0	£11,033	58.5	0	0.46%	2012/13
81	Electrical equipment - Other - Upgrades - CCTV	Peter Webster	£0	£188,000 <sup>17</sup>	£7,526	36.2	24.9	0.29%	2012/13

### 4.3 Near Term Projects

<sup>14</sup> LSP Grant

<sup>15</sup> School Budget

<sup>16</sup> School Budget

<sup>17</sup> LSP Grant

A number of projects are being considered at the moment and will be evaluated in the near future including:

- Boiler replacements
- Loft insulation at Council offices and schools
- Pipe work insulation at schools
- Cavity wall insulation at schools
- Draught proofing schools
- Installing electrical timer controls at Offices and schools
- Carrying out heating control upgrades at Primary and Secondary schools
- Installing electrical equipment timer controls at schools
- Retrofit/replace halogen lights to LEDs in offices
- Retrofit/replace T8 to T5 lighting in offices and schools
- Voltage optimisation at Herschel Multi-Storey Car Park
- Voltage optimisation – for schools and offices (SMP and new Horizons)
- Eco Driver training for 30 fleet drivers/staff
- Hire of two Low carbon replacement vehicles
- Carrying out heating control upgrades at schools
- Replacing sodium lighting with LEDs in Montem Pool hall
- Awareness raising campaigns across Council offices, schools and leisure centres

A full list of these projects can be found at Appendix B. If implemented we estimate that these projects could save us approx. 1,623.3 tonnes of CO<sub>2</sub> per annum. 1,623.3 tonnes of CO<sub>2</sub> represents 12.87% of our overall carbon reduction target.

#### **4.4 Medium to long term projects**

A number of projects are also being considered under this category and will be evaluated in the near future including:

- Replace sodium lighting with LEDs in Montem main hall
- Voltage optimisation at Langley Leisure Centre
- Install a Combined Heat & Power at Langley Leisure Centre
- Installation of air conditioning, Motors and Variable speed drives at SMP
- Automatic lighting controls in schools
- Boiler replacement at SMP
- Cavity wall insulation at secondary schools
- Draught proofing in schools
- Install air conditioning/Server room cooling at Primary and secondary schools
- Voltage optimisation at Hatfield Car Park
- Install street lighting /electronic control gear
- Install Street Lighting Central Management system - part night dimming on main roads (includes lantern replacement)
- Install secondary glazing in schools
- Further awareness raising campaigns across Council offices, schools and leisure centres

A full list of these projects can be found at Appendix C. If implemented we estimate that these projects could also save us a further 4,166 tonnes of CO<sub>2</sub> per annum. 4,166 tonnes of CO<sub>2</sub> represents 33.02% of our overall carbon reduction target.

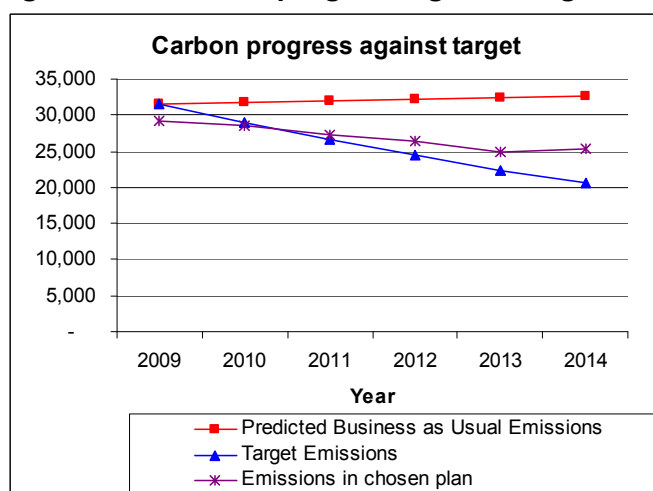
#### **4.5 Projected Progress towards Target**

If all of the projects identified in this Plan are successfully implemented and achieve the projected CO<sub>2</sub> savings, we estimate that the Council could save approx. 8,508.4 tonnes of

CO<sub>2</sub> over the course of this Programme. 8,508.4 tonnes of carbon is 67.44% of the Council's carbon reduction target.

	Section 4.1	Section 4.2	Section 4.3	Section 4.4	Total
Estimated annual CO <sub>2</sub> saving (tonnes)	2,294	424.9	1,623.3	4,166	8508
% of target achieved	18%	4%	13%	34%	68%
Cumulative % of target achieved	18%	21%	34%	68%	-

**Figure 4.1 – Carbon progress against target<sup>18</sup>**



As the projects identified thus far do not represent the full 40% reduction the Council aspires to, further opportunities will need to be identified and quantified in each year of Programme in order to meet our target by the end of April 2014.

Work has already begun on identifying a number of potential, future project opportunities which may help contribute towards the Council achieving its full carbon reduction target. These are summarised at Appendix D. An opportunities workshop for Project team members will also be held each year of the Programme to review progress to date and to identify further carbon reduction saving opportunities for incorporation into this Plan

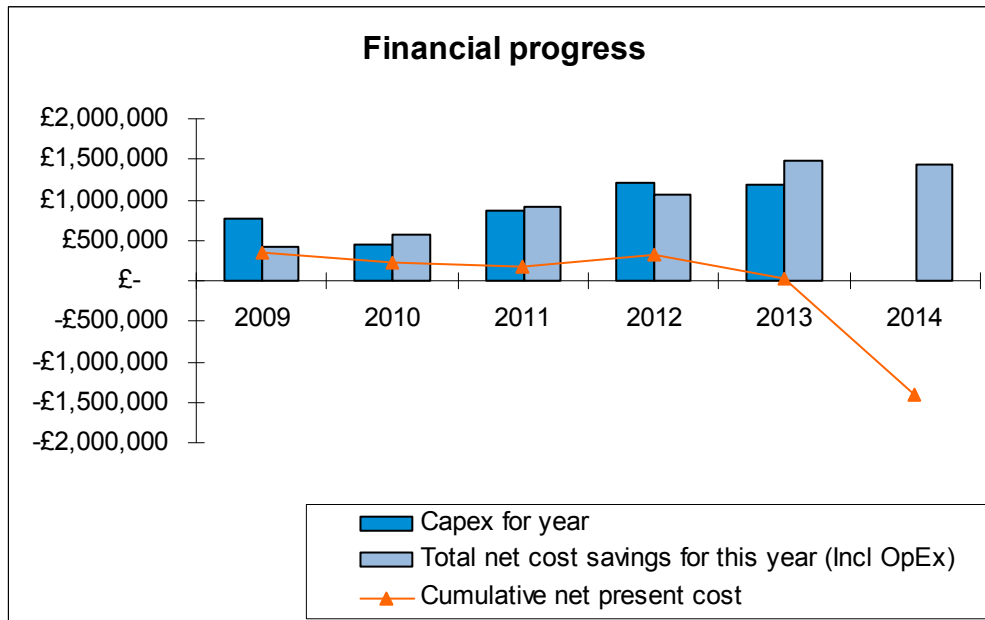
<sup>18</sup> Please note that the year 2009 in this graph is actually the 2008/09 baseline year



## 5. Carbon Management Plan Financing

Capital expenditure and cost savings have been projected for each year of the Plan (Figure 5.1).

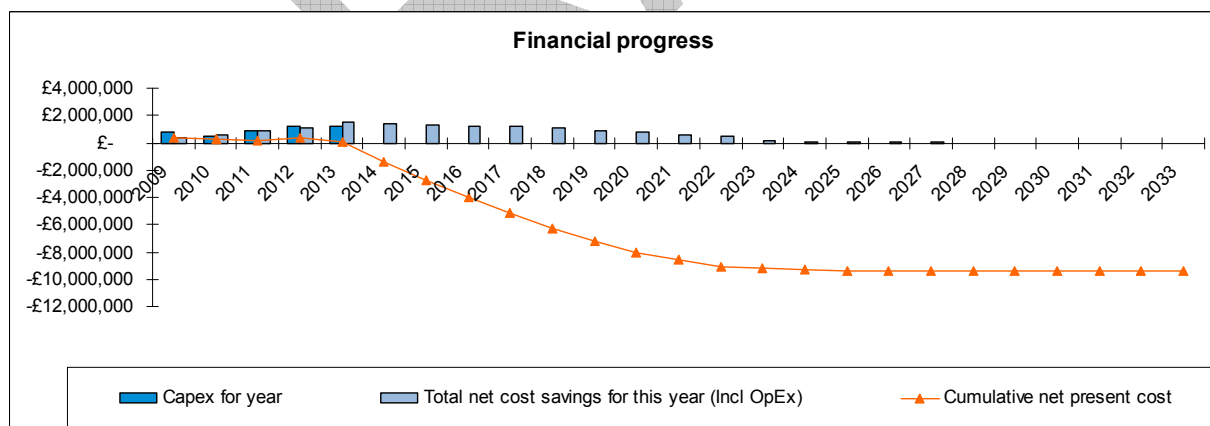
**Figure 5.1 – Financial Progress (net present cost curve)**



Please note that the year 2009 on the graph above is actually the 2008/09 baseline year etc.

Whilst the cumulative net present cost curve shows that capital expenditure exceeds the net cost savings in the short term, there are cost savings from the Plan by 2012/13 and on into the longer term. The cumulative net present cost of the Plan by 2014 is predicted to be -£1,403,114, a saving. By 2033, the net present cost will fall to -£9,453,618 (Figure 5.2).

**Figure 5.2 – Long-Term Financial Progress**



### 5.1 Assumptions

The following assumptions were made when calculating the financial progress for this Plan:

- A financial discount rate of 3.5% (taken from the UK Treasury Green Book 2008)
- An inflation rate of 2.5% (Carbon Trust estimate, based on historical data)
- A “persistence” discount rate of 3.0%, a discount on the energy saved (Carbon Trust estimate)

## 5.2 Benefits and Savings – Quantified and Unquantified

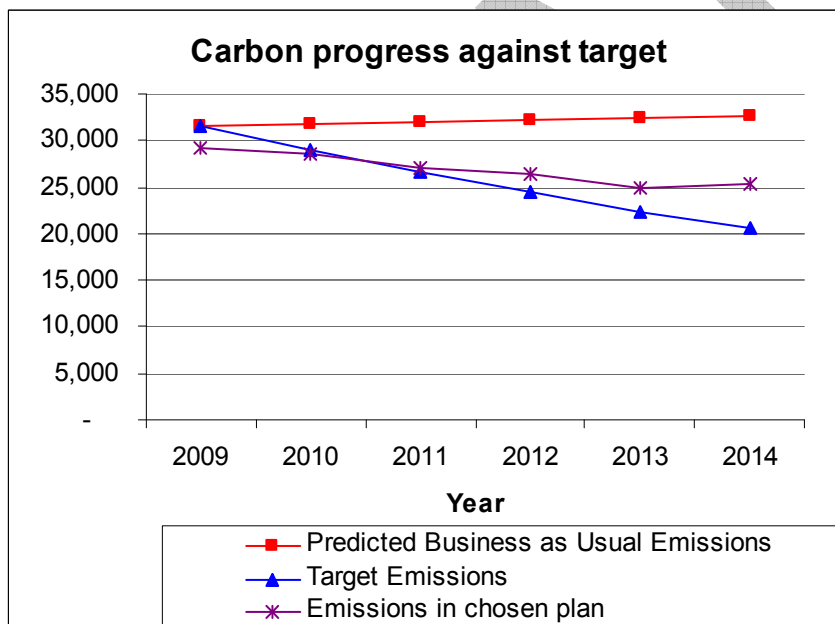
Delivering the carbon reduction projects identified in section 4 and appendices C and D of this Plan will not only reduce the Council's overall carbon footprint but will potentially generate considerable financial savings too. The main benefits identified thus<sup>19</sup> far are shown in the table below:

**Table 5.1 – Annual Cost and Carbon Savings Forecast**

	2009/10	2010/11	2011/12	2012/13	2013/14	Total
Estimated annual estimated cost saving	£381,413	£179,024	£436,261	£206,744	£532,334	£1,711,786
Estimated annual estimated CO2 saving (tonnes)	2,226	1,106	1,794	1,104	2,276	8508
% estimate of target achieved	18%	9%	14%	9%	18%	68%

As the Programme's project lists increase so too will the estimated savings from the Programme as a whole increase, thereby helping us achieve our targets.

**Table 5.2 – Carbon progress against target**



The unquantified benefits to Slough Borough Council of pursuing this Plan include:

- An improved reputation with staff
- Early preparation for the Carbon Reduction Commitment and increasing the amount of allowances that are recycled
- Supporting our performance on NI 185 – Reducing carbon emissions from Local Authority operations

<sup>19</sup> Additional projects will need to be identified and quantified in each year of the Programme to achieve the Council's target of a 40% reduction in its carbon emissions by 2014.

- Supporting our performance on NI 186 – Reducing carbon emissions from Local Authority area
- Fulfilling the obligations of the Nottingham Declaration
- Reducing our reliance on fossil fuels and improving our energy security
- Providing leadership to our communities and partners
- Providing a systematic approach to understanding our environmental risks and impacts and developing a pragmatic response.

### 5.3 Additional Resources

The Carbon Management Programme Board provides strategic oversight of the Programme, whilst the cross-authority Carbon Management Project Team identifies and quantifies projects. In order to make rapid progress and achieve substantial savings in CO<sub>2</sub> emissions the Programme will require cross authority participation, commitment and dedicated staff resources and time in a number of key areas for the duration of the Programme. The Programme Manager will work closely with Project team members and the resources available to maximise these co-dependencies and deliver the carbon savings identified in this Plan in a cost effective way.

### 5.4 Financial Costs and Sources of Funding

The total *provisional* amount of capital, revenue and external investment needed to realise this Plan's carbon and financial savings is summarised below:

**Table 5.3 – Provisional Funding Schedule for the Programme**

	2009/10	2010/11	2011/12	2012/13	2013/14	Total
Estimated capital cost	£747,416	£439,301	£672,485	£1,145,677	£954,366	£3,959,245
Estimated revenue cost	£16,125	£35,627	£259,106	£7,000	£410,635	£719,493
External funding secured to date	£0	£5,000 <sup>20</sup>	£0	£188,000 <sup>21</sup>	0	£193,000
<b>Total</b>	<b>£763,541</b>	<b>£479,928</b>	<b>£931,591</b>	<b>£2,272,268</b>	<b>£1,364,971</b>	<b>£4,871,738</b>

All of the projects identified in section 4.1 and 4.2 of this Plan were *existing* projects and as such have not required any additional resources as they were/are being serviced by existing Departmental, Schools, Contractors and Slough Community Leisure's capital and /or reserve budgets where applicable.

**Table 5.4 – Funding Schedule for section 4.1 and 4.2 of the Plan**

	2009/10	2010/11	2011/12	2012/13	2013/14	Total
Estimated capital cost to date	£747,416	£68,531	0	0	0	£815,947
Estimated revenue cost to date	£16,125	£17,355	£2,375	£0	£0	£45,875

<sup>20</sup> LSP Grant

<sup>21</sup> LSP Grant

External funding secured to date	£0	£5,000	£0	£188,000	£0	£193,000
Estimated savings secured to date	£381,413	£61,189	£3,262	£18,559	£0	£464,442
Estimated CO2 savings in tonnes secured to date	2,226	426	6.2	£94.7	£0	2,753.2

Funding for those projects provisionally identified in sections 4.3 and 4.4 of the Plan (excluding those that originate from Schools, contracted out providers (including Slough Community Leisure)) will depend on the funding being found from

- Directorate's existing capital and reserve budgets
- The Council's routine planned maintenance and repair budgets
- The Council's Capital and Assets programme (where the project has successfully bid for and secured funds)
- External grant aid where applicable

Schools projects will depend on funds being found from

- Dedicated schools grants
- Schools budgets
- Capital Primary Programme where applicable
- External grant aid where applicable

Contracted out service providers (including Slough Community Leisure) and outsourced contractors will be expected to finance projects from within their delegated budgets.

**Table 5.5 – Provisional financial costs and sources of funding required for sections 4.3 and 4.4 of the Plan**

	2009/10	2010/11	2011/12	2012/13	2013/14	Total
Estimated provisional capital cost	£0	£307,770	£672,485	£1,145,677	£954,366	£3,143,298
Estimated provisional revenue cost	£0	£18,252	£237,731	£7,000	£410,635	£673,618
External funding sources	£0	£0	£0	£0	£0	£0

The above figures are indicative and will depend on actual funding streams being identified and confirmed for each of the projects listed in sections 4.3 and 4.4 of this Plan, and in each year of the Programme.

## 5.5 Other Funding

It will also be necessary to supplement the Council's existing capital scheme resources with additional funding and external grants (where applicable) to enable us to fulfil both our corporate priorities and our commitment to reducing carbon emissions. All outside sources of funding will be explored.

## 6.0 Actions to Embed Carbon Management across the Organisation

The Cabinet endorsed this Carbon Management Plan in March 2010. Responsibility for delivering the Programmes target will be shared between Directorates by including individual CO<sub>2</sub> reduction targets in Directorate Service Plans from 2010/11 onwards. This will provide a shared responsibility for delivering not only this Plan's target but also the Council's CRC (from 2011) where a greater degree of co-operation and accountability will be required.

The Carbon Management Embedding Matrix at Appendix E shows what the scores were for Slough Borough Council before the Programme and where the authority aspires to be in by March 2014. The following actions<sup>22</sup> summarise the steps the Council needs to undertake in order to reach the higher benchmarks of this matrix.

### 6.1 Corporate Strategy – Embedding Carbon Saving into the Organisation

Action	Who	By When
Senior endorsement of Carbon Management Plan by the Leader, Chief Executive, Environment Portfolio Holder and Cabinet.	Cabinet/CMT	End April 2010
Refresh the Council's Strategic Plan in 2013 to refer to the Carbon Management Plan (and the linked Climate Change Strategy and Action Plan) so that carbon management becomes embedded into the Council's corporate planning processes, performance management (including appraisal) and audit functions.	Policy and Scrutiny team	End April 2010
Provide Corporate Service Planning Guidance requires all Departments to outline a contribution to carbon management	Performance Team	End April 2010
Negotiate carbon reduction targets with Departments (based on historical energy consumption figures), as part of the annual service planning cycle. These targets will be reviewed annually to encourage increased efficiency savings through the uptake of new technology and more efficient ways of working	Carbon Management Project Board	End April 2010
Embed targets into Departments' Service Plans	All Departments	From April 2010
The Carbon Management Board and Project Team to continue to act as champions in their Departments	All Departments	Ongoing

### 6.2 Programme Management – bringing it all together effectively

This factor of embedding Carbon Management is covered in section seven of the Plan.

<sup>22</sup> The following actions, which do not in themselves generate energy savings (so are not quantifiable in Section 4) will be undertaken throughout the life of the Programme to maximise the level of carbon reduction savings that can be achieved across all disciplines of the Council.

### 6.3 Responsibility – Saving CO<sub>2</sub> is Everyone’s Job

The Council will take the following actions to ensure that carbon management becomes the responsibility of all staff across the organisation:

Action	Who	By When
Hold a recruitment campaign to increase the number of green champions <sup>23</sup> across the Council.	Cabinet/CMT	End April 2010
Reflect the Council’s Carbon management policies and aspirations in our recruitment processes, through job descriptions, job adverts, new starter packs and induction training for all new staff.	Human Resources / Organisational Development	By August 2010
Issue new employee contracts that include carbon management responsibilities for all staff.	Human Resources	April 2010
Review the Council’s annual staff appraisal process to ensure it more closely matches individual, teams and Directorates carbon reduction interests and objectives to the Council’s policies and targets by reviewing and planning work and setting mutually agreed outcomes.	Human Resources and Policy and Performance Team	End April 2010
Produce and publish an Environmental Code of Conduct, based on policies already in place that explains what environmental behaviour is expected of staff. This Code will be endorsed by Directors, Heads of Service, Managers and Green Champions and will be made available to all staff on the SBC Insite.	Policy and Performance Team	By August 2010
Produce online guidance for Managers to ensure that all they are aware of their and their staff’s responsibilities with regard to promoting sound energy efficient working practises across the Council and their Directorates.	Human Resources	By March 2011
Team Managers to regularly update staff on the Council’s performance with regard to its climate change and carbon management polices and targets at regular team meetings throughout the year. Team Managers will also promote alternative travel modes to staff in light of the Council’s Staff Travel Plan.	All Departments	Ongoing
Hold annual “environmental management” seminars about energy and carbon management issues for building Managers, facilities Managers, procurement staff, Head	All Departments	Ongoing

<sup>23</sup> Green Champions raise awareness of energy, transport and waste issues across the Council. Their role is to raise green issues at regular team meetings, monitor electrical equipment usage in their place of work, help organise staff awareness events and put forward energy-saving ideas to Carbon Management Project Team members for further analysis and quantification.



Teachers and Bursars.		
Encourage staff to sign up to an “Environmental Pledge” scheme to help improve their and the Council’s environmental performance. The pledge will consist of a range of actions aiming to reduce greenhouse emissions, raise awareness and assist in adapting to the impacts of climate change.	Policy and Performance Team/Team Managers	September 2010
Introduce a staff Suggestion Scheme to give employees the opportunity to submit original carbon saving ideas to the Carbon Management Project team for further investigation/development. It will provide a recognised channel through which staff may submit their ideas as a means of gaining personal recognition and an opportunity to receive an award.	Communications team, Carbon Management Project team and Programme Board	Ongoing
Measure staff awareness of the issue through the annual staff attitudinal survey.	Communications team, Policy and Scrutiny Team	Annually
Assess the impact of all new projects on carbon emissions in Project Initiation Documents.	Improvement and Development Directorate	Ongoing
Undertake Environmental Impact Assessments (EIA) for all new developments in order to include them in the documentation to be considered by members as part of the Council’s decision making process. This is in order to ensure that the likely impact of all new developments on the environment are fully understood and taken into account before a development is allowed to go ahead. The current template for documents submitted to members for deliberation will be revised and training for staff on how to best quantify the impacts of the development on Slough’s carbon reduction targets will be provided.	Policy and Scrutiny team to develop / all Departments to follow	April 2010
All new builds (including schools) will be expected to meet the highest BREEAM standards and provide information to the Council (by way of an end of 1 <sup>st</sup> year report) on the environmental performance of the building in a comparative manner so that an objective assessment of the environmental performance of the buildings design can be undertaken and its subsequent achievements effectively monitored.	Property Services and Resources	Ongoing
Expand the Council’s Local Development Framework to include policies and guidance to help minimise carbon emissions from new developments (both Council and private) beyond the statutory minimum requirement.	Planning Department	September 2010
Produce guidance for Council project Managers and contractors to ensure that	Property Services and	May 2010



energy efficiency measures are prevented from being value engineered out of a project after the design stage. This is recognised best practice adopted elsewhere.	Resources	
Carry out risk assessments to ensure that national lighting and heating requirements for offices, stairwells, toilets etc, support the developments and introduction of energy efficiency projects undertaken on Council premises.	Property services	Ongoing
Energy consumption to be included as one of the key criteria within the Council' Asset Management and Community Facilities projects	Property services	Ongoing
The Council currently deploys about 20 new servers each year to cope with new and enhanced applications required by the Council. In future, there will be a requirement that all new applications must be capable of being virtualised.	ICT	Ongoing
Review the Council's Data Retention Policy and IT Data Management Plan in order to manage the Council's growth in storage requirements.	ICT	By Autumn 2010
Conduct a feasibility study pilot on the impact of increased home working and flexible working hours on energy consumption	Programme Manager	By end May 2010
Set up and Energy/carbon management intranet site where staff can access information on energy performance, energy saving guidance etc	Programme Manager	By Autumn 2010
Conduct a review the effect of new essential car user allowances (introduced as a result of the Council Job Evaluation and Harmonisation Programme) and introduce alternative CO <sub>2</sub> reducing modes of staff travel in HR Policy	Programme Manager/Human Resources	By April 2011

#### 6.4 Data Management – Measuring the Difference, Measuring the Benefit

Up to date data on energy usage is collected for all buildings (including schools), street lighting, the transport fleet, transport while on official business and contracted-out services. It is held centrally within the Performance and Projects team and analysed by the Property Services team and the Carbon Management Programme Manager, before it is reported annually to the Department for Energy and Climate Change (DECC) as performance indicator NI 185 for independent verification.

From April 2010 this data will also be used to monitor and evaluate progress made with regard to our achieving the carbon reduction targets set out in this Plan and Directorates service plans.

Progress will be reported to the Carbon Management Programme Board on a quarterly basis. Regular presentations of progress will be made to Environment, Community and Leisure Scrutiny Panel, the Corporate Management Team, the Local Strategic Partnership Climate Change PDG, Heads of Service and departmental management teams. An annual report will

also go to Overview and Scrutiny Panel and Cabinet. Progress against the Plan will also be published on the Council's website.

The Council is currently investigating the possibility of moving to a centralised billing system for its electrical use and is looking to introduce one or more Automatic Meter Reading Systems, Building Management Systems and sub-metering, at one or more of its sites, in order to greatly simplify the annual collection of its buildings related data. Automatic meters report live information about electricity and gas use in a building and should allow us to identify waste energy, especially at night and at weekends. They are seen as an essential tool in managing energy usage and can save organisations large amounts of time through the more efficient collection of metering data. The Council is currently exploring options with a number of local energy suppliers to provide the real-time data that our Property Services team need to manage the Council's energy on a daily basis.

Improvements will also be made to the way we collect employee's business related travel data from 2010/11 onwards.

### 6.5 Communication and training – Ensuring everyone is Aware

A **Communications Plan** for 2010/11 is being developed to promote this Carbon Management Plan. It will provide regular updates to both internal and external stakeholders (including other public sector bodies in Slough through the Local Strategic Partnership's Climate Change PDG), over the course of the Programme and will build on the staff energy awareness campaign that was held in October 2009, to coincide with National Energy Saving Week. This campaign involved the Green Champions, the Energy Saving Trust and the Green Doctor in providing advice and giveaways to staff and asking them to make a commitment to save energy. These events will be repeated throughout the life of the Programme to build momentum, help bring about behavioral change and share the Programme's successes and achievements with stakeholders.

The Communications Plan will be reviewed and revised annually to reflect progress made and new priorities identified.

The following **training** actions will also take place throughout the life of this Programme:

Category	Owner	By when
Carbon management input into the induction training provided for all new staff	Organisational Development	April 2010
Managers to be provided with guidance on how to embed carbon management into existing job descriptions and Personal Development Plans and report on carbon management achievements through the annual reporting cycle.	Human Resources/ Organisational Development	Autumn 2010
Carbon management will be covered in the Leadership Development Programme for both Members and the Corporate Management Team.	Policy and Scrutiny team	Ongoing
Training opportunities and intranet content will be provided and developed to help support the Green Champions in their role.	Agenda 21 Officer/ Communications team	Ongoing
Fleet vehicle drivers will continue to be offered fuel efficiency training.	Fleet Manager	Ongoing
Energy audit training opportunities, guidance and support to be provided for community groups who occupy Council buildings and Interserve employees to help them become more energy	Agenda 21 Officer/ Property Services	Ongoing

efficient and identify potential carbon reduction projects that could be carried out in Council owned buildings.		
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## 6.6 Finance and Investment – the Money to Match the Commitment

This factor of embedding Carbon Management is also covered in section five of this Plan.

Category	Owner	By when
Identify key finance contacts for local monitoring	Finance Champion	September 2010
Ensure business cases for projects are reviewed by Finance prior to acceptance	Finance Champion	September 2010
Obtain external funding for projects	Carbon Management Project Team, Slough Community Leisure, Carbon Management Programme Board	Ongoing
Embed the Council's CRC across the organisation	Carbon Management Programme Board, Finance, Carbon Reduction Commitment Managers, Property Services	Mid-2010
Investigate the possibility of embedding the Carbon Management Plan financing requirements in the Council's annual Capital Programme	Carbon Management Programme Board, Finance colleagues, CMT	Mid-2010
Investigate the possibility of recasting the Council's Capital Programme to prioritise carbon management projects	Carbon Management Programme Board, Finance colleagues, CMT	Mid-2010
Investigate the possibility of embedding the Carbon Management Plan financing requirements in the Council's annual PPRG bidding cycle.	Carbon Management Programme Board, Finance colleagues, CMT	Mid-2010
Investigate the possibility of ring fencing resources within the PPRG to finance carbon management projects	Carbon Management Programme Board, Finance colleagues, CMT	Mid-2010

## 6.7 Policy Alignment – Saving CO<sub>2</sub> Across the Organisation

Rather than developing a raft of new policies, top level priorities in the Council's Sustainable Community Strategy and Strategic Plan 2009 - 2011 will be reviewed and realigned. The following corporate policies will then be reviewed and re-aligned where necessary:

- Accommodation Strategy
- Air Quality Strategy

- Asset Management Plan
- Building Schools for the Future and Primary Strategy for Change Programmes
- Carbon Emissions in the Local Area (NI 186) Delivery Plan
- Climate Change Strategy
- Corporate Property Strategy
- Cultural Strategy
- Directorate Service Plans
- Economic Development Strategy
- Environmental Policy - to be developed
- Housing Strategy
- Learning for Sustainability in Schools Strategy
- Older People’s Strategy
- Parking Strategy
- Planning Policy
- Renewable Energy Policy – to be developed
- Sustainable Procurement Strategy
- Sustainable Transport Strategy
- Training and Development Strategy
- Travel and Subsistence Policy
- Workforce Planning Strategy

People 1<sup>st</sup>, Enterprise, Interserve, Slough Community Leisure and other major contracted-out services will be encouraged to align their policies with our Carbon Management Plan.

**6.8 Engagement of Schools – influencing Schools to reduce their carbon footprint**

Schools account for over 41% of the Council’s buildings carbon footprint. We recognise that our schools have tremendous reach and influence and can act as hubs for learning and change in their communities. Schools can also lead by example, by showcasing what can be achieved and help build confidence of others in undertaking actions to reduce their emissions both at home and in the work place.

Recent monitoring by Defra suggests that without further interventions from national and local government, emissions from schools will remain at a fairly constant level. In order to address Slough’s carbon footprint, the Councils approach will be based on three key principles

- Commitment to reducing carbon emissions across their whole foot print e.g. buildings, travel and the procurement of good and services
- Demonstrating community leadership by example
- Working wit our partners and other initiatives to ensure that the combined effect on carbon emissions are maximised.

Working with schools will be the hardest area to achieve reductions given that the schools have delegated budgets and may not necessarily have the same carbon reduction priorities as the Council.

The Council intends taking the following actions to help schools reduce their energy use:

Category	Owner	By when
Host energy management seminars for head teachers/bursars/site Managers/care takers to tighten energy management control in schools. 10% saving on gas and 20% saving on electricity could be expected though tighter control and campaign.	Agenda 21 Officer/ Property Services/ Programme Manager	Ongoing

To potentially fund another consultant led behavioural change programme at cohort of primary schools in the borough	Slough Climate Change Partnership Group	By the autumn 2010
Work with schools to identify and co-ordinate a range of potential CO <sub>2</sub> reduction opportunities/projects for the future	Property Services and Programme Manager	Ongoing
Allocate a person with overall responsibility for Schools CO <sub>2</sub> reduction	Education and Children's Services Directorate	April 2010
Publish and promote the Council's Learning for Sustainability in Schools Strategy to schools	Education and Children's Services Directorate	Spring 2010
Work with schools to monitor and collect energy consumption data for the Council	Property Services/ Improvement and Development Directorate	Ongoing
Promote free Carbon Trust walkabouts for schools to survey facilities and generate energy saving opportunities/action plans	Programme Manager	Ongoing
Provide free energy efficient light bulbs and computer power downs for schools	Agenda 21 Officer	Ongoing
Promote the work of the DCSF's Zero Carbon Task Force to schools	Agenda 21 Officer	Ongoing
Promote the availability of DCSF smart meters to schools	Agenda 21 Officer	Ongoing
Promote the Department of Energy & Climate Change's (DECC) suite of renewable energy tariffs for renewable heat, solar domestic hot water and ground-source heat pumps among others, to schools	Agenda 21 Officer	From April 2010

### 6.9 Engagement of your Suppliers – working with suppliers to reduce your carbon footprint

Slough Borough Council is a signatory to the Nottingham Declaration on climate change, meaning that the Council is committed to the delivery of the UK climate change program. The Council is working to achieve the five levels on the National Sustainable Procurement Strategy's Flexible Framework and is developing a sustainable procurement policy which will ensure that environmental considerations are included in all procurements where possible, practicable and value for money can be demonstrated. These environmental considerations will include the minimization of carbon emissions. Where applicable all new contracts will be awarded with sustainability as an important element of the award criteria, including how suppliers will reduce carbon emissions when delivering contracts. The Council also intends including a clause within the terms and conditions of contracts stipulating that contractors must undertake services in accordance with the Council's environmental policy and must comply with any reasonable request for data in relation to environmental matters. The management of contracts is service led, except where it is a corporate contract, and as such the performance of key suppliers on carbon related performance measures will be managed at service level.

Category	Owner	By when
Develop a sustainable procurement policy for the Council which ensures that environmental considerations are included in all procurements	Procurement team	April 2010



where possible, practicable and value for money can be demonstrated. This includes the development of suitable specification documentation, appropriate pre-tender, tender evaluation criteria and contract conditions		
Review the Council's new procurement policy against Improvement and Efficiency South East (IESE) sustainable procurement policy exemplar including energy/carbon whole life costing	Procurement team	April 2010
Work with our supply chain to encourage, educate and minimize carbon consumption and works with certain key suppliers to encourage carbon minimization	Procurement team/All Departments	Summer 2010
Include a standard clause on carbon management and information provision to all new contracts (where relevant). Additionally establish contract monitoring methods with contractors to ensure that the desired environmental impacts actually take place.	Procurement team/All Departments	Summer 2010
Consider carbon costing in procurement and finance policies in light of Council's participation in the Carbon Reduction Commitment "cap and trade" scheme	Procurement team/Finance team	April 2010
Publicise and promote the benefits of NHS Procurement and Supply Agency (PASA) contract for the procurement of energy to schools	Procurement team	April 2010

## 7.0 Programme Management of the Carbon Management Programme

Carbon Management has become an important local authority function driven by national performance indicators and carbon reduction targets. It also has significant financial and resource implications for the Council, requiring strategic oversight by senior management and elected members.

Slough's Carbon Management Programme contains a diverse set of projects drawn from every part of the organisation. Co-ordination of these projects will be provided by respective Carbon Management Project Team members reporting to the Programme Manager, who in turn will report to the Carbon Management Programme Board and Climate Change Partnership Delivery Group (PDG) of Slough Forward, our Local Strategic Partnership.

Projects will be managed in accordance with Slough's Project Management Framework, which is based on the recognised standards of Managing Successful Programmes (MSP) and PRINCE 2 methodology, but adapted to suit the specific governance needs of the Council. This framework provides:

- a common Council-wide set of standards and terminology for the consistent, open and transparent management of projects;
- for the strategic fit of a number of Council polices, programmes and projects, looking for dependencies and synergies across the Council where possible;
- for the effective project control start-up of any project commissioned by the Council – by using effective scoping out, planning and benefits setting principles for each; and
- a library of standardised checklists and reporting templates (highlight reports etc) for programme and programme Managers to use throughout a projects lifecycle, from inception to successful completion and closedown.

Using this framework will ensure that the projects conceived and undertaken during this Programme are effectively planned, managed, documented and assessed at each stage in their delivery.

### 7.1 Carbon Management Programme Board – strategic ownership and oversight

The Carbon Management Programme Board is responsible for the corporate and strategic management and oversight of our Carbon Management Programme. Their role is to promote support for the Programme and the projects undertaken within it to senior management, elected members and staff. The Board comprises of the following members:

- Roger Parkin, Director Improvement & Development (Chair)
- Councillor Satpal Parmar, Portfolio Holder for the Environment
- Nigel Dicker, Assistant Director of Environmental Services (Vice Chair)
- Clair Pyper, Director Education & Children's Services
- Julie Evans, Director of Resources
- Jane Wood, Director Community & Wellbeing
- Kevin Gordon, Assistant Director of Transformational Change
- Neil Simon, Assistant Director of Property Services
- Jo Head, Assistant Director of Commissioning, Procurement and Shared Services
- Trevor Lambert, Head of Communications
- Kevin Lowry, Director of People 1<sup>st</sup> (Housing ALMO)



The Board's terms of reference are to:

- Champion and provide leadership on Carbon Management (CM)
- Set and review the strategic direction of the Council and its targets
- Manage a reduction in carbon emissions from Council operations (including schools and contracted-out services). This will reduce operational running costs whilst helping to reduce the Council's impact on climate change
- Oversee the implementation of NI 185 (CO<sub>2</sub> reduction from local authority operations)
- Monitor progress and remove obstacles
- Review and champion plans for the financial provision of CM projects
- Assess the effectiveness and ease of alternative carbon savings projects
- Conduct option appraisals, develop business cases and prioritise any invest-to-save bids as part of the budget-setting process and make recommendations to Cabinet
- Develop a financial model for investment in carbon-saving projects
- Review procurement policies
- Monitor and evaluate the implementation of carbon-savings projects.

Prior to the publication of this Plan the Board met every two months, approximately one week after the Carbon Management Team's meeting. The Board will now meet every quarter to monitor the Programme's progress and delivery against the target up to and including April 2014.

At these meetings, the Programme Manager will prepare quarterly reports for members (to be known as highlight reports) based on information supplied by individual project team members, on the delivery of the Programme as a whole and on the performance of individual projects. These reports will include the following details for members' consideration:

- Realisation of the benefits arising from the implementation of the Plan and overall target (financial and carbon savings)
- RAG status of individual projects
- Risks and issue log using PRINCE 2 exception reporting methodology where appropriate.
- Support /decisions required from the board
- Progress on the carbon management embedding matrix
- Progress of Salix fund and projects

The Programme Manager will also meet at least monthly with the Project sponsor to discuss progress and any corrective actions required.

## **7.2 Carbon Management Project Team – Delivering the Projects**

The Carbon Management Project Team consists of officers with technical expertise from across a wide range of relevant service areas. It is chaired by the Programme Manager (who also co-ordinates their work) and will continue to meet regularly throughout the life of the Programme. The Project Team's role is to:

- Support the compilation of the emissions baseline data
- Identify suitable carbon reduction projects
- Build a business cases for potential carbon reduction projects
- Identify potential cost savings throughout the organisation by eliminating inefficiencies in energy use
- Deliver the Carbon Management Plan
- Deliver projects inline with the Council's Project Management (PRINCE 2) framework and service planning processes
- Identify any barriers and or threats which could impact on the successful delivery of the Programme for acceleration to the Programme Manager and Programme Board.

Carbon Management Project Team members include:

Name and position in the LA	Contact details
Amanda Renn – Interim Programme Manager/lead <sup>24</sup>	01753 875560 amanda.renn@slough.gov.uk
Tim Isbell Programmes and Procurement Manager (Property Services)	01753 875602 tim.isbell@slough.gov.uk
Paul Butler Senior Project Manager (Mechanical and Heating)	01753 875874 paul.butler@slough.gov.uk
Geoff Lowe Senior Project Manager (Electrical and Lighting)	01753 875876 geoff.lowe@slough.gov.uk
Kathryn Best Internal Communications Officer	01753 875007 kathryn.best@slough.gov.uk
John Northam Transport Manager (Fleet)	01753 477301 john.northam@slough.gov.uk
Tony Madden Capital and School Organisation Adviser	01753 875739 tony.madden@slough.gov.uk
Kathryn Horsepool Agenda 21 Officer	01753 875912 kathryn.horsepool@slough.gov.uk
Jo Head Assistant Director of Commissioning, Procurement and Shared Services	01753 875285 joanna.head@slough.gov.uk
Andrew Pate Accountant (Capital)	01753 875865 andrew.pate@slough.gov.uk
Roger Fraser Performance Manager	01753 875639 roger.fraser@slough.gov.uk
Viv Vallance Senior Travel Plan Consultant	01753 477344 viv.vallance@slough.gov.uk
Ken Mann Street lighting Engineer	01753 477478 ken.mann@slough.gov.uk
Daljit Purewal Contracts Officer (Care Homes)	01753 474044 daljit.purewal@slough.gov.uk
Auvtar Lakhan Business Support Manager (Community & Wellbeing)	01753 875577 auvtar.lakhan@slough.gov.uk
Surjit Nagra Human Resources Business Partner (Improvement & Development)	01753 875727 surjit.nagra@slough.gov.uk
Chris Wintermute IT Technical Infrastructure Manager	01753 875095 chris.wintermute@slough.gov.uk
Russ Bourner Policy and Scrutiny Manager	01753 875217 russell.bourner@slough.gov.uk

<sup>24</sup> Until the process to appoint a full-time Programme Manager has been completed.

### 7.3 Succession Planning for Key Roles

The Carbon Management Programme remains vulnerable to losing key post holders until carbon management is fully established and embedded in the day to day running of the Council. The risks faced by future changes in personnel will be mitigated in the following ways:

- On the Programme Board, Councillor Satpal Parmar, Portfolio Holder for Environment is supported by Councillor James Walsh, Chair of the Communities, Leisure and Environment Scrutiny Panel.
- Roger Parkin, Director Improvement & Development is Programme Sponsor and Chair of the Programme Board. This is a key role which, if vacated, will be delegated to another member of the Corporate Management Team by the Chief Executive. The Deputy Programme Sponsor, Nigel Dicker, Assistant Director of Environmental Services, will deputise as Chair during the recruitment process.
- Amanda Renn has been appointed Interim Programme Manager and Chair of the Project Team until the process to appoint a full-time Programme Manager has been completed. If this key role is vacated before a full time replacement is recruited, it will be delegated to another member of the Project Team by the Chairman of the Programme Board until the vacancy is filled
- All other team members are delegated by their Heads of Department, who will nominate alternates, should vacancies occur.

### 7.4 Ongoing Stakeholder Liaison

A stakeholder liaison plan has been drafted and is an integral element of the overall Communication Plan that is being developed to help engage key stakeholders in making this Plan a success.

In addition to the activities specified in our communications plan, the development of individual Project Initiation Documents (PIDs) for particular projects in the Programme, using PRINCE 2 Methodology will provide further opportunities to undertake detailed stakeholder analysis throughout the life of the Programme.

### 7.5 Annual Progress Review

The Programme Manager will produce an annual Carbon Management Report for endorsement by the Board and for presentation to the Corporate Management Team and elected members at the end of each financial year, up to and including April 2014. The report will include details of:

- projects implemented
- CO<sub>2</sub> savings achieved against targets
- Financial savings achieved
- New project opportunities identified
- the value and sources of project funding
- the Council's progress against the Carbon Management Embedding Matrix (See Appendix E)
- Carbon Reduction Commitment alignment (from 2011).

## Appendix A: LACM7 PROJECT DESCRIPTION TEMPLATE

*This document justifies the proposed LACM7 project based upon the estimated costs, risks, benefits and potential savings and includes a strategic assessment to measure the projects' contribution to the Council's priorities. It will be used by the LACM7 Programme Board to judge whether the proposed project is and continues to be desirable, viable and achievable, track progress through the delivery stage and measure whether the project has been successful.*

<b>Project Name:</b>	Introduce booking system for pool bikes 2010/11		
<b>Project Reference:</b>	SBC	<b>Date:</b>	November 2009
<b>Submitted by:</b>	Amanda Renn on behalf of Rub Nawaz	<b>Project Manager:</b>	To be assigned
<b>Department</b>	Community and Wellbeing	<b>Project Sponsor:</b>	Rub Nawaz, Transport Manager

**Current status of project:** Please state which category your project falls into:

- **Planned/funded project** (i.e. definitely planned to take place and have already have funding allocated)
- **Near term project** (i.e. projects that we plan to take but are not yet funded)
- **Medium to long term projects** (i.e. projects which we may take but which are not yet planned in detail because of the need to carry out feasibility studies or further work)

Near term project (i.e. a project we plan to take but is not yet funded)

**Description:** A short description of the project, no more than a paragraph

To transfer the responsibility for booking out the Councils pool bikes from Community and Wellbeing Directorate to Property Services (to the facilities helpdesk) and introduce the option of booking out a pool bike to the Facilities telephone help desk menu.

**Reasons:** Why is this project necessary?

To encourage the increased use of pool bikes – as an alternative to the car, for staff travelling between buildings on official business.

**Project scope & boundaries:** What will be included in the project and what will not?

1. The transfer of the function for booking out the pool bicycles from Rub Nawaz's team in Community and Wellbeing Directorate to the Property Services (facilities helpdesk) in 2010/2011.
2. The development of simple and easy to use booking system for the short term hire of the pool bicycles
3. The launch and promotion of the new service and the availability of pool bikes to staff across the Council
4. The development of a simple data and or /base spreadsheet to capture details concerning the to journeys made by staff using a pool bicycle when on official business per annum

**Expected outcomes:** What will the result of the change generated by the project be and what contribution will the project make to the Council's key priorities? (0 = no contribution, 5 = whole contribution)

**SP1** Cohesive Communities incl. Equalities  
**SP2** Environment – A place to live, work and play  
**SP3** Economy & Skills – Prosperity for all  
**SP4** Health & Wellbeing – Adding years to life and life to years  
**SP5** Safer Communities – Being safe: feeling safe

Strategic Priority	Level of Contribution	Outcome
1	0	By encouraging all staff to give up the car and replace with a pool bike, this project is a great leveller, providing both

		direct equaliser and also encouraging staff to have greater awareness of their surroundings when travelling through them – which strongly promotes cohesive communities on an individual learning curve.
2	5	Reduced impact on the environment. Reduced CO <sub>2</sub> emissions for staff using bicycles rather than cars while travelling on official business. Reduced mileage claims from staff who would normally use their cars on official business.
3	0	Pool bikes rather than reliance on cars provides transport source for all staff regardless of individual income.
4	0	By encouraging staff to cycle rather than use cars, there could well be associated health and fitness improvements.
5	0	Being safe, feeling safe – a key Priority for this initiative to address – it may actually result in staff being (and feeling) LESS safe...

Business options considered: <i>What options have been considered to achieve the aims of the project?</i>	
1.	Leave current, paper based booking system in place (with Community and Wellbeing)
2.	Transfer function to Property Services: Facilities help desk and introduce a new simplified paper based booking system of the hire out of the pool bikes
3	Transfer function to Property Services: Facilities help desk and introduce a new IT based booking system of the hire out of the pool bikes
<b>Which option is your preferred option?</b>	
2	
<b>Which option is your 'do nothing option'?</b>	
1	

Assumptions?
<ul style="list-style-type: none"> <li><b>Financial savings generated by the preferred option: N/A</b></li> <li><b>1) The Payback period for the project: 0.01 years:</b> <i>Almost immediately following the introduction in the new service 2010</i></li> <li><b>Tonnes of CO<sub>2</sub> to be saved annually: 0.186 tonnes CO<sub>2</sub></b></li> <li><i>This figure is based on the following assumptions:</i> <i>Baseline year 2008/09</i> <i>50 bicycle journeys were made in 2008/09 @ an average distance of 5 miles each = 250 miles</i> <i>If the same journeys/distances had been travelled by a car with a 1.4 litre petrol engine, travelling 36 miles to the gallon and emitting 10.3 kg/ CO<sub>2</sub> per gallon of petrol the following amount of CO<sub>2</sub> would have been emitted:</i> <i>250 miles @ 36 miles/gallon = 6.94 gallons of petrol consumed. 6.94 gallons petrol x 10.3 kg/ CO<sub>2</sub> = 71.52 kg/ CO<sub>2</sub> or 0.071 tonnes of CO<sub>2</sub> per annum</i> <i>If following the transfer of the booking system from Community and Wellbeing to Property Services, and publicising this facility to staff, we were able to increase the number of bookings from 1 to 3 a week at an average of 6 miles per journey, we would save 0.257 tonnes of CO<sub>2</sub> per annum.</i> <i>3 bookings a week x 50 weeks = 150 journeys @ 6 miles a journey = 900 miles</i> <i>If the same journeys/distances were travelled by a car with a 1.4 litre petrol engine, travelling 36 miles to the gallon and emitting 10.3 kg/ CO<sub>2</sub> per gallon of petrol the following amount of carbon would have been emitted:</i> <i>900 miles @ 36 miles/gallon = 25 gallons of petrol 25 gallons petrol x 10.3 kg/ CO<sub>2</sub> = 257.5 kg/ CO<sub>2</sub> or 0.257 tonnes of CO<sub>2</sub> per annum.</i> <i>Over 5 years this would equate to 1.2875 tonnes of CO<sub>2</sub> saved, which is 0.010% of our aspirational target.</i></li> </ul>
Funding position:
<ul style="list-style-type: none"> <li><b>Please states the sources of funding available to finance the preferred option: internal, external - N/A</b></li> </ul>

- *If external what investment criteria needs to be met etc -N/A*  
*Say how /when decision on funding will be made - N/A*

**Resources:**

- **Can the preferred option be delivered within current resources? If no, please explain why.**

Yes

- **Quantify what additional resources (e.g. people) are required to deliver the preferred option and where these will come from?**

Project should result in a net saving of 4 hrs in staff time to Green and Built Environment Directorate and a net increase in staff time of 4 hrs to Property service, per annum based on the **current** level of bicycle usage. This is based on the following assumptions:

3 staff @ 1 booking a week = 50 bookings a year

50 bookings a year t 5 minutes per booking = 4 hrs (250 minutes) spent managing the service per annum, this excludes arranging for maintenance though

If, as a result of moving the booking function, introducing the new booking system and promoting this new facility to staff, we were able to increase the use of the pool bikes by 150% (to three bookings a week) the net loss to Property Services (in terms of staff time) would be as follows:

1 member of staff @ 3 bookings a week = 150 bookings a year.

150 bookings a year @ 5 minutes per booking = 12 hrs (750 minutes) per annum.

NB. It should be noted that there would be greater benefits to be secured because the Council has agreed with Stows Cycles that it will service the bikes on a 6 monthly basis. Facilities have agreed to drop off the bikes at the shop and collect them when the work is complete. This will add an additional 2 hours of time every 6 months (i.e. one hour to deliver the bikes and 1 hour to collect the bikes).

Currently Green and Built Environment will continue to be the budget holder for Pool Bike Maintenance. This is likely to take 1-2 days of time per year to administer.

**Ensuring and measuring success:**

- **What are the key success factors, or things that will need to happen for this project to succeed?**

Endorsement of the suggested approach by CMT and the Programme Board

Endorsement of the proposed approach by Property Services

A willingness to perform the task on behalf of the helpdesk staff

- **How and when success will be measured / evaluate. e.g. what criteria will you use?**

Through the collection of timely, good quality performance management data by the help desk

**Timescales:**

**Earliest start date:** April 2010

**Latest start date:** July 2010

**Earliest completion date:**  
July 2010

**Latest completion date:** October 2010

**Interim deliverable / decision points:**  
N/A

**When will the project deliver anticipated CO<sub>2</sub> savings?**

Transfer of the function will not generate any Co2 savings in its own right - but savings will accrue from increasing the number of journeys made per annum

**Risk Analysis: Include any potential key risks to the on a scale of High/Medium/Low**

Potential Risk	Probability (H/M/L)	Impact Level (H/M/L)
Property services: help desk will refuse to take over the function	M	H
Staff fail to make use of the facility or the pool bicycles	H	H





DECISION TAKEN BY CARBON MANAGEMENT PROGRAMME BOARD	
Date:	

DECISION TAKEN BY CMT (where applicable)	
Date:	

DECISION TAKEN BY CABINET (where applicable)	
Date:	

DRAFT

## Appendix B: Near term projects

The following projects are being considered at the moment and will be evaluated in the near future. All of the figures shown here are therefore *indicative* and require more much detailed analysis / quantification.

Ref	Project	Lead	Indicative Capital cost	Indicative Revenue cost	Indicative Annual Financial Saving	Indicative CO2 savings in yr 1 tonnes	Pay back	% of Target	Indicative Start Year <sup>25</sup>
10	Boiler replacement with condensing boilers – Upton Court Park Changing Rooms	Paul Butler	£105,000	£0	£17,112	143.9	6.1	1.14%	2010/11
22	Building fabric – Loft insulation – Offices – SMP	Paul Butler	£12,000	£0	£1,589	13.4	7.5	0.11%	2010/11
23	Building fabric – Loft insulation – Slough Grammar School	Slough Grammar School	£10,000	£0	£5,232	44	1.9	0.35%	2010/11
25	Building fabric – Pipe work insulation – Slough Grammar School	Slough Grammar School	£2,000	£0	£2,141	18	0.9	0.14%	2010/11
26	Building Management Systems – Fine tuning – Slough Grammar School	Slough Grammar School	£500	£0	£2,022	17	0.2	0.13%	2010/11
28	TREND Building Management Systems – Upgrades & fine tuning – Offices	Geoff Lowe	£35,000	£0	£9,223	50.2	3.8	0.40%	2010/11
29	Replace sodium lighting with LEDs in Montem Pool hall	Slough Community Leisure	£26,000	£0	£10,233	49.3	2.5	0.39%	2010/11
31	Electrical equipment timer controls – Schools	Geoff Lowe	£13,738	£0	£9,291	44.7	1.5	0.35%	2010/11
33	HVAC – Air Conditioning – Heat Pump Strategy – Langley Grammar School	Langley Grammar School	£1,200	£0	£1,364	6.6	0.9	0.05%	2010/11
34	HVAC – Heating & ventilation strategy – Langley Grammar School	Langley Grammar School	£30,000	£0	£4,392	21.2	6.8	0.17%	2010/11
37	HVAC – Heating control upgrade – Slough Grammar School	Slough Grammar School	£0	£0	£95	0.8	0.0	0.01%	2010/11
40	Lighting – Retrofit/replace halogens to LEDs – St Martin's Place	Geoff Lowe	£1,476	£0	£5,095	24.5	0.3	0.19%	2010/11
41	Lighting – Retrofit/replace T8 to T5 – Offices	Geoff Lowe	£8,260	£0	£2,709	13	3.0	0.10%	2010/11

<sup>25</sup> It may prove necessary to move the start date of these projects back to much later in the Programme if sufficient funds cannot be found in the year in question to allow them to proceed

42	Lighting – Retrofit/replace T8 to T5 – Schools	Geoff Lowe	£43,120	£0	£14,143	68.1	3.0	0.54%	2010/11
43	Lighting – Strategy – Langley Grammar School	Langley Grammar School	£33,600	£0	£4,008	19.3	8.4	0.15%	2010/11
44	Renewables – Biofuel switching from oil – Slough Grammar School	Slough Grammar School	£2,500	£0	£1,211	21.2	2.1	0.17%	2010/11
46	Transport – Fleet – Pilot Driver training for 30 staff	John Northam	£0	£1,800	£1,026	2.3	1.8	0.02%	2010/11
48	Transport – Fleet – hire of two Low carbon replacement vehicles	John Northam	£0	£4,816	£2,859	6.4	1.7	0.05%	2010/11
49	Voltage optimisation – Car parks – Herschel Multi-Storey Car Park	Geoff Lowe	£11,636	£0	£13,644	65.7	0.9	0.52%	2010/11
18	Transport – Staff Travel Plan – implementation	Viv Vallance	£233,646	£0	£210,924	480.7	1.1	3.81%	2011/12
19	Building fabric – Cavity wall insulation – 4 Primary schools	Schools	£4,744	£0	£899	7.6	5.3	0.06%	2011/12
20	Building fabric – Draught proofing – Slough Grammar School	Slough Grammar School	£900	£0	£899	7.7	1.0	0.06%	2011/12
21	Building fabric – Loft and cavity wall insulation – Langley Grammar School	Langley Grammar School	£12,600	£0	£939	7.9	13.4	0.06%	2011/12
30	Electrical equipment timer controls – vending machines, boilers and other equipment	Geoff Lowe	£10,000	£0	£14,923	71.9	0.7	0.57%	2011/12
32	Electrical equipment timer controls – Slough Grammar School	Slough Grammar School	£90	£0	£426	2.1	0.2	0.02%	2011/12
35	HVAC – Heating control upgrade – Primary schools	Schools	£71,211	£0	£13,213	111.1	5.4	0.88%	2011/12
36	HVAC – Heating control upgrade – Secondary schools	Schools	£111,871	£0	£20,758	174.5	5.4	1.38%	2011/12
50	Voltage optimisation – Langley Grammar School	Langley Grammar School	£8,000	£0	£3,539	17.	2.3	0.14%	2011/12
51	Voltage optimisation – Offices	Geoff Lowe	£35,636	£0	£15,797	76.1	2.3	0.60%	2011/12

### Appendix C: Medium to long term projects

The following projects have not been planned in any great detail and will be evaluated in the near future. Many of these projects are also subject to feasibility studies or further work, meaning that all of the figures quoted are highly speculative at this stage and have been provided for *indicative* purposes only.

Ref	Project	Lead	Indicative Capital cost	Indicative Revenue cost	Indicative Annual Financial saving	Indicative CO2 savings in yr 1 tonnes	Pay back	% of Target	Indicative start Year <sup>26</sup>
86	Replace sodium lighting with LEDs in Montem main hall	Slough Community Leisure	£11,500	£0	£4,264	20.5	2.7	0.16%	2010/11
92	Voltage optimisation – Langley Leisure centre	Slough Community Leisure	£16,876	£0	£6,182	29.8	2.7	0.24%	2010/11
58	Combined Heat & Power – Langley Leisure Centre	Slough Community Leisure	£111,844	£0	£26,009	125.3	4.3	0.99%	2011/12
59	Communications – Awareness raising campaign – Leisure centres	Slough Community Leisure	£0	£9,331	£3,343	18.7	2.8	0.15%	2011/12
60	Communications – Awareness raising campaign – Offices	Kathryn Best	£0	£5,000	£6,149	33.5	0.8	0.27%	2011/12
61	Communications – Awareness raising campaign – Schools	Kathryn Horsepool	£0	£223,400	£76,664	521.4	2.9	3.54%	2011/12
63	Electrical equipment - Motors - Variable speed drives - St Martin's Place	Paul Butler	£32,000	£0	£17,145	82.6	1.9	0.65%	2011/12
68	Lighting - Automatic control - Slough Grammar School	Slough Grammar School	£750	£0	£141	0.7	5.3	0.01%	2011/12
75	Boiler replacement with condensing boilers & boiler sequencing - SMP	Paul Butler	£39,193	£0	£5,880	49.4	6.7	0.39%	2011/12
52	Building fabric - Cavity wall insulation - Secondary schools	Schools	£7,453	£0	£1,411	11.9	5.3	0.09%	2012/13

<sup>26</sup> It may prove necessary to move the start date of these projects back to much later in the Programme if sufficient funds cannot be found in the year in question to allow them to proceed

53	Building fabric - Draught proofing - Schools	Schools	£37,161	£0	£7,699	64.7	4.8	0.51%	2012/13
54	Building fabric - Loft insulation - Other schools	Schools	£41,223	£0	£8,663	72.8	4.8	0.58%	2012/13
56	Building fabric - Pipework insulation - Other schools	Schools	£1,887	£0	£476	4	4	0.03%	2012/13
57	Building Management Systems - Upgrades & fine tuning - Schools	Schools	£115,994	£0	£41,837	237.8	2.8	1.89%	2012/13
65	HVAC - Air conditioning - Server room cooling - Primary schools	Schools	£269	£0	£112	0.5	2.4	0.00%	2012/13
66	HVAC - Air conditioning - Server room cooling - Secondary schools	Schools	£269	£0	£112	0.5	2.4	0.00%	2012/13
73	Voltage optimisation - Car parks - Hatfield Car Park	Geoff Lowe	£11,636	£0	£2,558	12.3	4.5	0.10%	2012/13
79	Communications - Awareness raising campaign - Offices	Kathryn Best	£0	£5,000	£8,557	46	0.6	0.36%	2012/13
82	Street Lighting Central Management system - part night dimming on main roads (includes lantern replacement)	Ken Mann	£588,691	£0	£13,335	64.2	dnpb	0.51%	2012/13
87	Lighting - Zoning - Schools	Geoff Lowe	£243,094	£0	£100,946	486.2	2.4	3.85%	2012/13
89	Renewables - Small scale wind - 2x 6kW turbines for schools	Jeff Lewis	£98,000	£0	£1,453	7	dnpb	0.06%	2012/13
14	Transport - Fleet - Pilot Driver training for 30 staff	John Northam	£0	£2,000	£1,026	2.3	1.9	0.02%	2012/13
67	Street lighting - electronic control gear	Ken Mann	£21,435	£0	£8,901	42.9	2.4	0.34%	2013/14
74	Voltage optimisation - Schools	Geoff Lowe	£100,049	£0	£41,298	198.9	2.4	1.58%	2013/14
76	Boiler replacement with condensing boilers & boiler sequencing - Schools	Schools	£128,285	£0	£22,194	186.6	5.8	1.48%	2013/14
77	Building fabric - Secondary glazing - All Schools	Schools	£115,318	£0	£18,288	153.8	6.3	1.22%	2013/14

	Electrical equipment – Motors – Variable speed drives – Schools	Geoff Lowe	£10,489	£0	£4,755	22.9	2.2	0.18%	2013/14
83	Communications - Awareness raising campaign - Offices	Kathryn Best	£0	£5,000	£7,902	46	0.6	0.32%	2013/14
84	HVAC - Heating zoning - Schools	Schools	£13,798	£0	£2,406	20.2	5.7	0.16%	2013/14
88	Renewables - Biofuel boiler switching from oil - Schools	Schools	£366,963	£0	£34,583	606	10.6	4.80%	2013/14
90	Lighting- Automatic movement controls - Offices	Geoff Lowe	£77,071	£0	£13,335	64.2	5.8	0.51%	2013/14
91	Lighting - Automatic control - Schools	Geoff Lowe	£120,958	£0	£20,928	100.8	5.8	0.80%	2013/14
93	Transport Fleet - Low carbon Replacement vehicles	John Northam	£0	£405,635	£366,186	834.6	1.1	6.62%	2013/14

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## Appendix D: Summary of potential projects in the pipeline

Work has already begun on identifying a number of potential, future project opportunities which may help contribute towards the Council achieving its full carbon reduction target. The current list is summarised below and this will be added to on a regular basis:

- Heart of Slough Redevelopment Project: Removal of the Brunel car park
- Heart of Slough Project: Redevelopment of Slough Central Library site (including new offices and housing)
- Heart of Slough Project: possible CHP plant and/or district heating installation scheme
- Heart of Slough Project: use of photovoltaic's on the roof of the Learning Curve
- The Britwell and Northborough Regeneration project
- The Chalvey Regeneration project
- Relocation of the Town Hall Server room to Slough Trading Estate
- Relocation of the Town Hall print room to a new site and the possible upgrade to more energy efficient printing equipment
- Decommissioning of the Town Hall and redevelopment of the site
- Refurbishment of Langley Community Centre
- Lighting and lift upgrades to the communal areas of People 1st
- Refurbishment of Cippenham park changing rooms
- Refurbishment of Thames Valley Community Centre
- Possible introduction of SSE District heating scheme for Greenwatt Way Eco homes
- Increased eco driver training for contractors
- Encouraging more sustainable modes of travel for commuter staff
- Increased alternative fuel options (including electric) and fuel efficient vehicles for the fleet
- Biodiesel replacement fuel for refuse trucks
- Use of photovoltaic's on large Council buildings (including schools)
- New Children's Centre in Colnbrook
- Refurbishment of Baylis Court Secondary school
- Installation of heating and ventilation systems and a replacement boilers at Montem Primary school
- Boiler replacements at St. Bernard's Catholic Grammar school
- Increased printer consolidation/rationalisation St Martins Place
- Further Automatic Meter Reading Systems, Building Management Systems and sub-metering opportunities at SMP, Landmark Place, My Council, and New Horizons
- Haymill Community Centre re-provision
- Possible closure of Gurney House care home
- Relocation of Wexham Nursery to Lascelles Park
- Possible relocation of the Biomass Boiler at Wexham Nursery to an alternative location
- External shading devices for St. Martins Place
- CCTV centre: on street equipment upgrade
- Further automatic lighting controls at Foxborough School
- Replacement heating system (boilers and radiators) at Foxborough School
- Installation of a Biomass boiler at Parlunt Park Primary school
- Installation of a CHP at Wexham Court Primary school

- Replacement lights in hall adjacent to canteen area at Lynch Hill school
- Heating project at St. Martins Place (gas and electric)
- The Council's Office Smart Move Programme is expected to yield significant office energy savings through increased hot desking and home working
- A Consultant led behavioural change programme at 3 Primary schools in the borough may also identify a range of potential CO<sub>2</sub> reduction opportunities for the future.
- The Carbon Trust's recent walkabout at Slough Crematorium may also identify a range of possible CO<sub>2</sub> reduction opportunities for the future (including wall and roof insulation opportunities and the replacement of boilers and controls)
- The Council's forthcoming Green Fleet Review may also identify a range of possible CO<sub>2</sub> reduction opportunities for incorporation into this Plan.
- We also anticipate that further carbon reduction projects will emerge from an Assessment of Energy Saving Opportunities report prepared by Clouds Environmental Consultancy for the Council in December 2009<sup>27</sup>, a review of the Assets Management Plan, the Building Schools for the Future Programme and other work programmes such as the Council's forthcoming Accommodation and Work Force strategies.
- DEC's improvement plans will be regularly reviewed to determine whether any of the suggestions made are viable during the life of this Plan

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<sup>27</sup> Product ID P-0132638. Prepared by Mark Burckitt on 23 December 2009.

**Appendix E: Embedding Carbon Management across Slough Borough Council**

	CORPORATE STRATEGY	PROGRAMME MANAGEMENT	RESPONSIBILITY	DATA MANAGEMENT	COMMUNICATION & TRAINING	FINANCE & INVESTMENT	POLICY ALIGNMENT *	ENGAGEMENT OF SCHOOLS
<p><b>BEST</b></p> <p>2013/14</p> <p><b>5</b></p>	<ul style="list-style-type: none"> <li>Top level target allocated across organisation</li> <li>CO<sub>2</sub> reduction targets in Directorate Business Plans</li> </ul>	<ul style="list-style-type: none"> <li>Cabinet / CMT review progress against targets on quarterly basis</li> <li>Quarterly diagnostic reports provided to Directorates</li> <li>Progress against target published externally</li> </ul>	<ul style="list-style-type: none"> <li>CM integrated in responsibilities of senior Managers</li> <li>CM part of all job descriptions</li> <li>Central CO<sub>2</sub> reduction advice available</li> <li>Green Champions leading local action groups</li> </ul>	<ul style="list-style-type: none"> <li>Quarterly collation of CO<sub>2</sub> emissions for all sources</li> <li>M&amp;I in place for:                             <ul style="list-style-type: none"> <li>buildings</li> <li>street lighting</li> </ul> </li> <li>Data externally verified</li> </ul>	<ul style="list-style-type: none"> <li>All staff given formalised CO<sub>2</sub> reduction:                             <ul style="list-style-type: none"> <li>induction and training</li> <li>communications</li> </ul> </li> <li>Joint CM communications with key partners</li> <li>Staff awareness tested through surveys</li> </ul>	<ul style="list-style-type: none"> <li>Finance committed for 2+ yrs of Programme</li> <li>External funding being routinely obtained</li> <li>Ring-fenced fund for carbon reduction initiatives</li> </ul>	<ul style="list-style-type: none"> <li>CO<sub>2</sub> friendly operating procedure in place</li> <li>Central team provide advice and review, when requested</li> <li>Barriers to CO<sub>2</sub> reduction routinely considered and removed</li> </ul>	<ul style="list-style-type: none"> <li>A 'whole school approach' including curriculum</li> <li>Mature programme of engagement in place</li> <li>CO<sub>2</sub> saving in schools having a wider community impact</li> </ul>
<p>2010/12</p> <p><b>4</b></p>	<ul style="list-style-type: none"> <li>CO<sub>2</sub> reduction commitment in Corporate Strategy</li> <li>Top level targets set for CO<sub>2</sub> reduction</li> <li>Climate Change Strategy reviewed annually</li> </ul>	<ul style="list-style-type: none"> <li>Sponsor reviews progress and removes blockages through regular Programme Boards</li> <li>Progress against targets routinely reported to CMT</li> </ul>	<ul style="list-style-type: none"> <li>CM integrated in to responsibilities of department heads</li> <li>Cabinet / CMT regularly updated</li> <li>Staff engaged through Green Champion network</li> </ul>	<ul style="list-style-type: none"> <li>Annual collation of CO<sub>2</sub> emissions for:                             <ul style="list-style-type: none"> <li>buildings</li> <li>street lighting</li> <li>transport</li> <li>waste</li> </ul> </li> <li>Data internally reviewed</li> </ul>	<ul style="list-style-type: none"> <li>All staff given CO<sub>2</sub> reduction:                             <ul style="list-style-type: none"> <li>induction</li> <li>communications</li> <li>CM matters communicated to external community</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Coordinated financing for CO<sub>2</sub> reduction projects via Programme Board</li> <li>Finances committed 1yr ahead</li> <li>Some external financing</li> </ul>	<ul style="list-style-type: none"> <li>Comprehensive review of policies complete</li> <li>Lower level policies reviewed locally</li> <li>Unpopular changes being considered</li> </ul>	<ul style="list-style-type: none"> <li>A clear emphasis on energy / CO<sub>2</sub> reduction in schools</li> <li>Council activities fully coordinated</li> <li>Broad set of education stakeholders</li> </ul>
<p>2009/10</p> <p><b>3</b></p>	<ul style="list-style-type: none"> <li>CO<sub>2</sub> reduction vision clearly stated and published</li> <li>Climate Change Strategy endorsed by Cabinet and publicised with staff</li> </ul>	<ul style="list-style-type: none"> <li>Project team regularly review CM progress:                             <ul style="list-style-type: none"> <li>actions</li> <li>profile &amp; targets</li> <li>new opportunities</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>An individual provides full time focus for CO<sub>2</sub> reduction and coordination across the organisation</li> <li>Senior Sponsor actively engaged</li> </ul>	<ul style="list-style-type: none"> <li>Collation of CO<sub>2</sub> emissions for limited scope i.e. buildings only</li> </ul>	<ul style="list-style-type: none"> <li>Staff environmental or energy group given ad hoc:                             <ul style="list-style-type: none"> <li>training</li> <li>communications</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>A view of the cost of CO<sub>2</sub> reduction is developing, but finance remains ad-hoc</li> <li>Some centralised resource</li> </ul>	<ul style="list-style-type: none"> <li>All high level and some mid level policies reviewed, irregularly</li> <li>Substantial changes made, showing CO<sub>2</sub> savings</li> </ul>	<ul style="list-style-type: none"> <li>A person has responsibility for Schools CO<sub>2</sub> reduction</li> <li>Schools CO<sub>2</sub> reduction projects coordinated</li> <li>Ad-hoc funding</li> </ul>
<p>2008/09</p> <p><b>2</b></p>	<ul style="list-style-type: none"> <li>Draft Climate Change Policy</li> <li>Climate Change references in other strategies</li> </ul>	<ul style="list-style-type: none"> <li>Ad hoc reviews of CM actions progress</li> </ul>	<ul style="list-style-type: none"> <li>CO<sub>2</sub> reduction a part-time responsibility of a few department champions</li> </ul>	<ul style="list-style-type: none"> <li>No CO<sub>2</sub> emissions data compiled</li> <li>Energy data compiled on a regular basis</li> </ul>	<ul style="list-style-type: none"> <li>Regular awareness campaigns</li> <li>Staff given CM information on ad-hoc basis</li> </ul>	<ul style="list-style-type: none"> <li>Ad hoc financing for CO<sub>2</sub> reduction projects</li> </ul>	<ul style="list-style-type: none"> <li>Partial review of key, high level policies</li> <li>Some financial quick wins made</li> </ul>	<ul style="list-style-type: none"> <li>Ad-hoc schools projects to specifically reduce energy / CO<sub>2</sub></li> </ul>
<p><b>1 Worst</b></p>	<ul style="list-style-type: none"> <li>No policy</li> <li>No Climate Change reference</li> </ul>	<ul style="list-style-type: none"> <li>No CM monitoring</li> </ul>	<ul style="list-style-type: none"> <li>No recognised CO<sub>2</sub> reduction responsibility</li> </ul>	<ul style="list-style-type: none"> <li>No CO<sub>2</sub> emissions data compiled</li> <li>Estimated billing</li> </ul>	<ul style="list-style-type: none"> <li>No communication or training</li> </ul>	<ul style="list-style-type: none"> <li>No specific funding for CO<sub>2</sub> reduction projects</li> </ul>	<ul style="list-style-type: none"> <li>No alignment of policies for CO<sub>2</sub> reduction</li> </ul>	<ul style="list-style-type: none"> <li>No CO<sub>2</sub> / energy reduction policy for schools</li> </ul>

The red line indicates the self-assessed position at the outset of the Programme in May 2009. The black line indicates the position that the organisation aspires to reach by the end of the Programme, in April 2014.



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