

# Local Authority Carbon Management Programme

## Halton Borough Council Strategy and Implementation Plan (SIP)

**Date:** 31 January 2006

**Version number:** 1

**Owner:** Dick Tregea, Strategic Director Environment

**Approval:**

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## Approvals

Sign-off, approvals, and document status, in accordance with the Local Authority's normal operating procedure.

## EXECUTIVE SUMMARY

There is now a global scientific consensus that climate change is happening and is directly related to human activity. Rising global temperatures will bring changes to weather patterns and increased frequency and intensity of extreme weather events. The effects have, and will, continue to be felt here in the United Kingdom as the heat wave of 2003 and the flooding in June 2007 are more likely to occur and in the future their likelihood will increase further.

The trend prediction for the UK anticipates warmer, wetter winters and hotter, drier summers. Spring 2007 was the warmest since UK wide records began in 1914. The warm spring followed one of the warmest recorded winters and a run of record breaking years (the last five years are the warmest on record). The summer of 2007 brought the highest rainfall since records began (Local Government Association Climate Change Commission).

The impact of climate change together with the increasing costs of fossil fuel is encouraging organisations to look at how they use energy. By actively managing consumption the Council has the opportunity to limit its energy costs. **The Councils' current annual spend in energy is in the region of £4.4m which is predicated to rise by approximately £5.3m by 2011/12 over the next few years if no action is taken.** Reducing energy consumption could help reduce costs by £500,000 based on 2014/15 predictions.

Climate change is now a major issue of international, national and local concern. There is still time to reduce the impact we are having on climate change if we act now. By changing the way we do things every day at work, we can all contribute locally to make a global impact.

Local Authorities can play a key role in tackling climate change both in terms of reducing costs and carbon emissions from their own operations and encouraging local residents, business and organisations to unite in an effort to reduce emissions locally.

This strategy will set the Council on a path of changing our current practices over the short to medium/long term ensuring that carbon emissions are considered in the Council's decision making processes. As part of the strategy, the Council will implement a range of projects that will lead to cost and emission reductions. The Council's long term ambition is to reduce its emissions by 33% by 2015/16. The current projects will help reduce emissions by 20% resulting in savings of approximately £480,000 by 2012/13 and 4,891 tonnes of CO<sup>2</sup>.

During the life time of the Plan the Council will explore setting up a pilot pay back fund, and consider the feasibility of introduction renewal technologies as part of future building refurbishment programmes to achieve the additional 1306 reduction of energy efficiency and extend recycling services to minimise waste taken to landfill.

David Parr  
**Chief Executive**

Tony McDermott MBE  
**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 inline with its Kyoto commitments and the Local Authority Carbon Management programme is designed in response to this. It assists councils in saving money on energy and putting it to good use in other areas, whilst making a positive contribution to the environment by lowering their carbon emissions.

Halton Borough Council was selected in 2007, amidst strong competition, to take part in this ambitious programme. Halton Borough Council partnered with the Carbon Trust on this programme in order to realise vast carbon and cost savings. This Carbon Strategy and Reduction Plan commits the council to a target of reducing CO<sub>2</sub> by 20% by 2015 and underpins potential financial savings to the council of around £480,000.

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 Halton Borough Council in their ongoing implementation of carbon management.



Richard Rugg  
**Head of Public Sector, Carbon Trust**

## 1 INTRODUCTION

### 1.1 Background to the Carbon Management Programme

The Council has demonstrated its commitment to reducing its emissions by signing the Nottingham Declaration on climate change. The declaration pledges that the Council will take positive action over the coming years to tackle the impact its emissions have on the environment. In this context, the Council was one of 45 authorities selected to participate in the fifth phase of the Carbon Trust's Local Authority Carbon Management Programme (LACMP). The Council's participation in the programme reinforces its commitment to managing energy consumption and will ensure the Council takes planned and practical steps to reduce the impact of its operations on the environment. This strategy is the main outcome of the Council's involvement in the first year of the Programme.

### 1.2 Timescale

The strategy summarises the Council's position with regard to Carbon Management, provides for the first time a breakdown of the Council's emissions, outlines the work that has been completed to date to reduce emissions and sets out further work that will be undertaken over the next five years (2008/08 - 2012/13).

### 1.3 Signoff

The development of the strategy has been supported by technical officers from across the authority in each area covered by the Plan. The Strategic Director Environment has provided senior management support and the Executive Board Member Environment has provided political leadership.

The Strategy will be submitted to the Corporate Policy & Performance Board for consideration and formal approval by the Executive Board in March 2008.

## 2 CARBON MANAGEMENT STRATEGY

### 2.1 Context and drivers

A wide range of strategies and policy documents influence carbon emission reduction within the Council.

#### **Community Strategy**

The Community Strategy provides an overarching framework through which the corporate, strategic and operational plans of the Council and its partners can contribute to community objectives. Through the Strategy the Halton Strategic Partnership aims to encourage sustainable development both locally and more widely to promote regional, national and global gains. The Community Strategy sets out clearly our ambitions for a sustainable future for Halton.

The development and implementation of this strategy will contribute to the Community Strategy's overall objectives.

#### **Service Plans**

Annual service plans are an important element of the Council's performance planning framework. They provide the link between the Community Strategy objectives and the work of individual Directorates. Annually, each service plan is required to produce an annual service plan which identifies how service areas will contribute to the overall Community Strategy objectives. The specified actions in this strategy will feed into relevant service plans.

#### **Cost Effectiveness**

A guideline principle of the Community Strategy is to deliver services in an economical efficient and effective manner. In addition, as part of the Gershon efficiencies, the Council is required to produce an annual statement demonstrating how it has achieved its efficiency targets. The Carbon Management Strategy will play a key part in delivering efficiencies by reducing consumption and related costs by seeking to improve the performance of the Council's existing activities.

For the first time, the Strategy has set out the Council's carbon footprint and associated energy costs. This improved management information provides the Council with a cost base to make savings from reduced consumption. The actions in the Strategy will help the Council comply with any mandatory emissions capping schemes that are likely to be introduced by 2010.

## Community Leadership

The primary focus of this strategy is the carbon emissions that the Council is directly responsible for. By proactively reducing emissions from our own activities, the Council can show leadership and encourage others in the community to adopt a similar approach. The strategy will be used as a basis to develop a wider climate change strategy to encourage local residents to reduce the impact of their activities on the environment.

## Climate Change - National Picture

The issue of climate change is growing in importance and increasingly becoming a focus for action in national and regional strategies. Central government has an increasing expectation that local authorities have a significant role to play in helping achieved the Government's national targets for reducing UK emissions by 20% by 2020 and 60% by 2050. Implementation of the Strategy will demonstrate the Council's commitment to contribute to national objectives.

## 2.2 Vision

The Council's corporate vision for carbon management is:

*To manage carbon emissions to deliver long term cost savings, minimise the impact of the Council's activities on the environment and demonstrate its commitment to carbon management to its employees and the wider community.*

Objectives

## 2.3 Strategic Objectives

To deliver long term cost savings from managing carbon emissions

To examine ways to embed and involve staff in the implementation of Carbon Management actions and initiatives

### Property

To improve the energy efficiency of Council buildings and schools

To integrate carbon reduction into future building design

### Transport

To investigate possible options for reducing carbon emissions from staff and business travel

To reduce the total number of miles travelled

To reduce emission from journeys travelled

To reduce emission from the vehicle fleet

### **Procurement**

To explore opportunities for prompting sustainability through procurement

### **Street Lighting**

To reduce emissions from street lighting but maintain the balance between emissions and community safety.

## **2.4 Targets**

In the light of the work undertaken developing the Strategy and Implementation Plan the following targets have been established.

To reduce the Council's overall emissions by 20% below the baseline year of 2006/07 by March 2013

During the lifetime of the strategy the Council will continue to explore additional carbon reduction initiatives. The Council will review its activities annually and will look to increase this target as and when additional activities emerge. The Council's aspirational target for reducing emissions remains at 33%.

## **3 EMISSIONS BASELINE AND PROJECTIONS**

### **3.1 Scope**

The boundaries set for the baseline included emissions from

- Council buildings
- Schools
- Street lighting
- Fleet Transport
- Business Travel
- Waste

The Council has included in its baseline emissions from activities under its direct control and where sources data were reliable. The activities represent the largest areas of energy consumption and therefore, where the Council can have the greatest impact.

Procurement and community was seen as having a key impact on the Council's emissions but data collection was excluded as no reliable data was available at the time of quantifying the baseline. The complex nature of emissions from those sources are often outside the control of the Council and also as a start point the Council wishes to focus on those areas under its direct control.

### **3.2 Baseline**

The base year chosen was 2006/07.

The table below is a summary of the Council's Corporate Carbon Footprint for 2006/07.

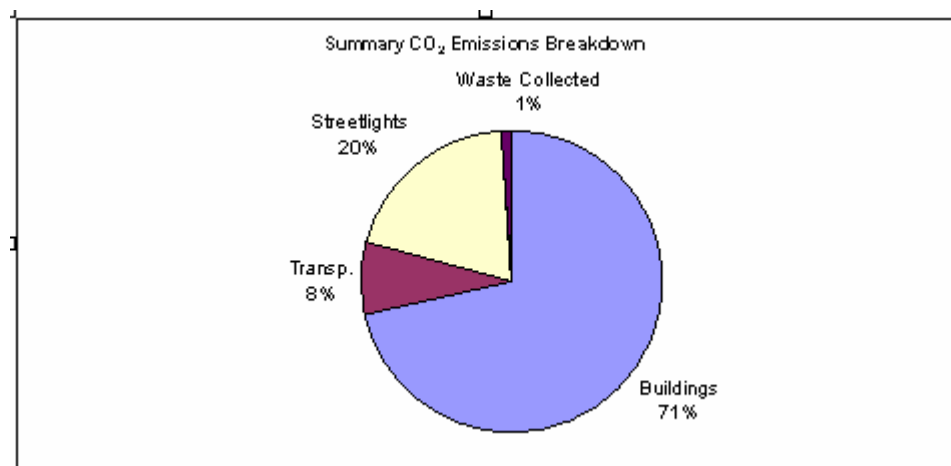
Halton Borough Council	2006/07
Total Tonnes of CO <sup>2</sup> emissions	24,190
Total Energy and Fuel Costs	4,259,000

The table below provides a breakdown of the total CO<sup>2</sup> emissions and costs.

Emissions Area	Cost £	% Overall	CO <sub>2</sub>	% Overall
Buildings	£1.1m	26%	6,486	26.6%
Schools	£1.2m	27%	10,960	44.8%
Fleet Transport	£0.3m	7%	1,256	5.1%
Business Miles	£0.8m	19%	645	2.6%
Street Lighting	£0.8m	19%	4,835	19.8%
Waste			279	1.1%
	£4.20m		24,461	100.00%

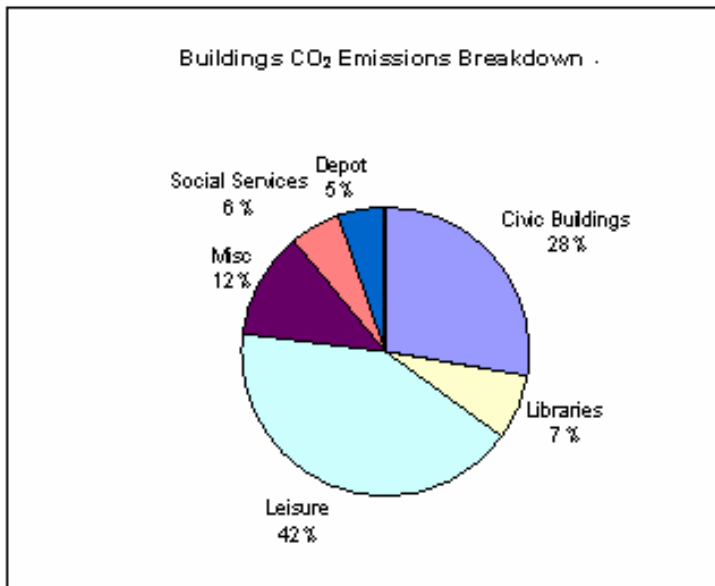
Whilst some data can be treated with a high degree of confidence (electricity, gas, fuel used by vehicle fleet, business miles) the data around waste, business miles by car type, numbers of cars using petrol/ diesel is less reliable and some assumptions were built in.

The diagram below illustrates the CO<sub>2</sub> emissions for each emission area as a % of the Council's carbon footprint.



Managing energy consumption in buildings and schools offers the greatest scope for making an impact.

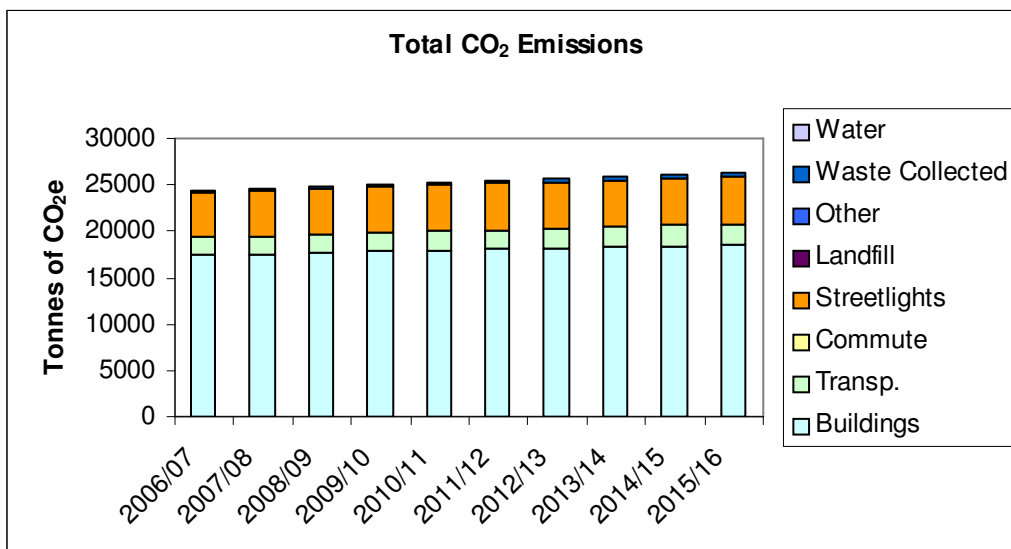




### 3.3 Business As Usual (BAU) Projections

To help calculate an emissions reduction target within the Strategy a prediction of the Council's CO<sub>2</sub> emissions for the next five years has been calculated. The BAU scenario assumes the Council takes no action to reduce the existing trends in energy use within the Council's control and reflects the efforts of actions already taken or underway to reduce emissions. Therefore, the BAU projections indicate what is expected to happen to the Council's emissions if no further action is taken.

Projected Emissions: Business As Usual



The following is a detailed breakdown of BAU emissions by each area.

	Base Year 2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Buildings including schools	17,447	17,569	17,692	17,816	17,941	18,066
Transport (Fleet)	1,256	1,278	1,301	1,325	1,348	1,373
Transport (Business)	645	656	666	680	692	705
Street Lighting	4,835	4,869	4,903	4,937	4,972	5,007
Total CO <sup>2</sup>	24,183	24,372	24,564	24,758	24,953	25,151
% increase from baseline	0	0.78	1.56	2.38	3.09	3.85

### 3.4 Energy Related Costs - BAU

The Council's current spend on energy related costs is approximately £3.6m. Energy prices continue to be volatile and in recent years gas and electricity price rises have been in excess of 10%. Over the next five years based on DTI figures for increases in fuel prices indicate that prices will increase as follows:

Electricity & Gas	3.5%
Climate Change Levy	20%
Fuel	3.6%

Based on actual increased in recent years percentage increases may be higher than those predicted.

A BAU approach would see the Council's costs increase as follows based on DTI figures;

Year	Total Energy Costs
2007/08	£4.4m
2008/09	£4.6m
2009/10	£4.8m
2010/11	£5.0m
2011/12	£5.3m

Based on these conservative cost estimates projected costs will increase by 22% from the base year.

In considering the projections it is also important to bear in mind that the continued modernisation of public services has resulted in, and will continue to have, a significant impact in the operational requirements of the Council building. In particular, extended opening hours for buildings to take account of public expectation of service delivery, extended school and increased flexible working conditions. The Council through its Accommodation Strategy will continue to rationalise its building stock. However, it is difficult to assess the overall impact of the building portfolio at this time.

#### Calculation Assumptions

- Buildings - 0.7% annual increase in gas and electricity. 3.5% annual increase in prices.
- Transport - 1.8% increase in mileage. 3.6% increase in prices.
- Climate Change Levy - Annual increase of 2%.

### 3.5 Reduced Emissions Scenario

Through its participation on the LACMP the Council has identified a number of actions (see Section) to reduce its emissions over the coming years. The projected CO<sub>2</sub> reductions from implementing the actions in the Strategy are shown below together with what could be achieved if the aspirational target of 33% was achieved.

## Value At Stake (Vas)

The VAS analysis is defined as the difference between doing nothing (a business as usual approach (BAU)), and taking an active approach to carbon management as part of a systematic CO<sub>2</sub> emissions reduction programme.

The VAS calculation presented below shows that the projected emissions and costs of a BAU approach using the standard Carbon Trust's assumptions of a year on a year increase in energy consumption and prices and energy prices at today's date. The figures are based on the Council achieving its aspirational target of 33% reduction within the lifetime of the strategy.

The following assumptions have been used:

### Price

Electricity, Gas and Street lighting	3.5%
Climate Change Levy	2%
Petrol/ Diesel	3.6%

### Energy Consumption

Electricity, Gas	0.7%
Fleet/Business miles	1.8%

As the past year has shown energy costs are extremely volatile. Increases were far greater than the assumptions used. For example, Street Lighting prices increased by 60% and Gas prices increased by 30%. Electricity reduced by 18%.

## Business As Usual Scenario - Standard Carbon Trust Scenario

The following table and chart below shows the predicted effect on energy costs if no action is taken to control carbon emissions.

## Halton Borough Council Strategy & Implementation Plan



The VAS represent the total savings in energy and carbon related costs that can be obtained through adopting a Carbon Management.

Energy related costs (£'000):

Value-at-Stake costs

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
Total BAU	4,259	4,452	4,653	4,864	5,085	5,315	5,556	5,808	6,072	6,348
Total RES	4,259	4,197	4,135	4,074	4,014	3,955	3,897	3,839	3,783	3,727
VAS per year	0	255	519	790	1,071	1,360	1,660	1,969	2,289	2,621
VAS aggregated savings			774	1,564	2,635	3,995	5,655	7,624	9,913	12,534

Energy related carbon (tCO2):

Value-at-Stake

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
Total BAU	24,190	24,380	24,572	24,766	24,961	25,158	25,358	25,558	25,761	25,966
Total RES	24,190	22,980	21,831	20,740	19,703	18,717	17,782	16,893	16,048	15,245
VAS per year	0	1,400	2,741	4,026	5,259	6,441	7,576	8,666	9,713	10,720
VAS aggregated savings			4,141	8,167	13,425	19,866	27,442	36,108	45,821	56,541

**3.6 Reduced CO<sub>2</sub> Emissions Scenario**

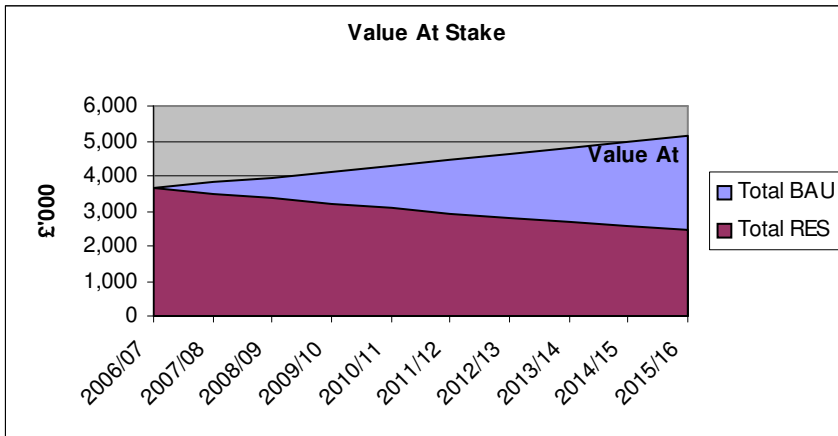
The table and charts below show the effect upon both energy costs and CO<sub>2</sub> emissions if a Carbon Management programme based on a 33% reduction was implemented.

**Value at Stake**

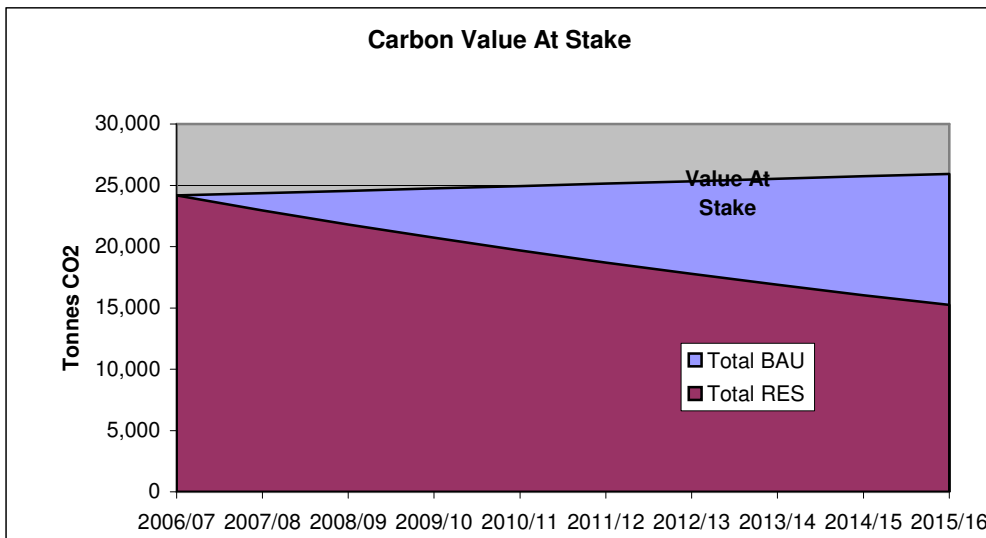
If the Council achieves its 33% reduction target, potentially savings in the regional of £2m over the lifetime of the Plan may be achievable (table 1). This is based on a 33% reduction in the predicted energy spend to 2015. There would also be a projected reduction in CO<sub>2</sub> emissions from 26,000 tonnes per year to 15,241 per year (table 2)

The Value at Stake between the Business as Usual and reduction emissions scenario is set out below in terms of energy related costs and energy related carbon.

**Table 1**



**Table 2**



### 3.7 Past Actions and Achievements

Through a series of existing plans and actions the Council has already taken steps to manage its carbon emissions.

#### Staff Travel

The Council's Travel Plan "on the Move" outlines the Council's commitment to increasing opportunities for sustainable travel and reducing the number of single occupancy journeys to and from and while at work. The Plan sets targets to increase the number of employees walking, cycling, using public transport and car sharing for the journey to and from work and for business purposes. Successful initiatives to date include:-

- the implementation of a car share database
- improved cycle stage facilities at the Council's main buildings (lockers, showers etc)
- introduction of pooled bikes
- introduction of a cycle mileage
- incorporated personalised journey planning as part of the introduction of a bus ticket (Halton Hopper) to cover multi journeys

#### Procurement Policy

The Council's Procurement Policy seeks to encourage environmentally friendly procurement and supports the minimisation of waste and increased recycling. The Council currently purchases recycled paper, laptops with the latest Intel Core 2 Duo processors (which use 40% less power) and uses recycled IT consumables. The Council's Agresso system has increased the use of electronic procurement methods and reduced the amount of waste paper and resource storage requirements. In terms of stationery, the Council has increased to the percentage of recycled products purchased and reduced the frequency of orders and deliveries.

As part of the Action Plan in this strategy, the Council intendeds to develop a sustainable procurement policy in place to extend its current activities.

#### Buildings

The Council's Property Services department has implemented numerous energy efficiency schemes across the Council's property portfolio. These are mainly the introduction of roof insulation, double glazing to improve the thermal performance of buildings along with boiler replacement schemes. In 2007/08 these schemes will help reduce the Council's emissions by 33 tonnes CO<sub>2</sub>

In addition, similar schemes in schools have been introduced. In 2007/08 schemes will help reduce emissions by 75 tonnes CO<sub>2</sub>.

Wigg Island Nature Centre is operated by wind turbine and reharvester rainwater.

The Council's Accommodation Strategy identifies proposals for the rationalisation of accommodation, resulting in a smaller estate either by ending leases or selling properties. Work is already in hand to concentrate staff in the three main Council buildings of Municipal Building, Rutland House and Runcorn Town Hall. As part of this approach the Council will explore opportunities to work with partner agencies to reduce the public sector estate, encourage flexible working arrangements and reduce storage space by greater use of document imaging.

## **LA21**

The Council adopted a LA21 strategy in 2000. The Strategy contains a range of measures to reduce waste and increase recycling, improve energy efficiency, improve access to public transport, improve the biological diversity with Halton and provide a greater range of open spaces for the benefit of local residents.

## **Waste Strategy**

The Council operates over 50 sites and two main civic sites. Recycled paper, bottles, shoes and textiles. Green waste and paper is operated in many areas of the Borough. Trials are currently underway to extend the kerbside recycling to include plastic bottles, cans, glass bottles, jars and cardboard.

## **Street Lighting**

The council purchases 100% of its energy from renewable sources.

## **Vehicles**

The Council's new refuse fleet is compliant with Euro 10 emissions standards. Driver training to encourage fuel efficiency is provided to employees.

## **4 CARBON MANAGEMENT IMPLEMENTATION PLAN**

### **4.1 Summary of Activities**

The following is a summary of the carbon reduction activities that have been identified to date. Further details of each action including costs, benefits, resources, ownership, accountability, performance measures, risks and timing are shown at Appendix 1

# Halton Borough Council Strategy & Implementation Plan



Action 2008 - 2013							
Project	Responsibility/Lead Officer	Timescale	Cost (s)	Cost Saving	Funding	Potential carbon savings	Pay Back (years)
<b>BUILDINGS</b>							
Install Powerperforators in various Council Buildings	John Hughes Head of Property Services	Commencement 2008/09	£137,000	£36,000 pa	Invest to Save budget	206	3
Programme of works to improve lighting, heating and water controls at Stobart Stadium, Halton	Chris Patino Stadium Manager	Ongoing	£49,000	£49,000 over 4 years	Invest to Save budget	30-40	4
Programme of Works to improve heating, water and lighting controls and for photovoltaic tiles at Runcorn Town Hall	John Hughes Head of Property Services	Commencement June 2007 - Completion June 2008	Included in total refurbishment costs	£13,750	Property capital programme	55	
Replacement of old light fittings and tubes, together with incorporation of lighting controls	John Hughes	Subject to funding	£44,020	£10,613	Subject to Invest to Save bid	76.7	4
Replacement boiler and insulation of Picow Farm depot, Glendale and Inglefield	John Hughes	2008/09	£125,000	TBD	Maintenance programme	55	
Explore the feasibility of creating a pilot payback fund for carbon reduction initiatives in Council buildings	John Hughes/Jim Yates	2008/09	TBD	TBD	Submit bid to Invest to Save budget. Match funded by Salix.	TBD	TBD
Cultural change programme (staff awareness campaign, energy champions etc, training for managers)	Michelle Baker/Jim Yates/ Debbie Houghton	March 2008	£10,000	£100,000	Invest to Save budget	650	3/ 4
Engage schools in carbon management programme	TBC	2008/09	TBD	£130,000		1960	
Increase procurement electricity from CHP Services	John Hughes	April 2008	Nil	Nil	Purchase is part of existing energy contract	1430 tonnes	
Integrate carbon management into Building Schools for the Future Programme	Ann McIntyre	2009/10	To be assessed	TBD	To be considered as part of BSF Scheme	To be assessed	TBD



# Halton Borough Council Strategy & Implementation Plan



Action 2008 - 2013							
Project	Responsibility/Lead Officer	Timescale	Cost (s)	Cost Saving	Funding	Potential carbon savings	Pay Back (years)
Programme of Energy efficiency measures in schools (replacement of boilers, roof insulation, double glazing)	Phil Dove/John Hughes	Ongoing	£783,800	TBD	Capital repairs budget	132	
Networking of printers to multi functional devices	Pauline Lowe	October 2008	£60,000 for additional server capacity	£150,000 over 3 years	Invest to save budget	50-60	3-4
Review of feasibility of introducing renewable technologies	Strategic Director Environment	2008 - 2013	TBD	TBD	TBD	TBD	
<b>TRANSPORT</b>							
Introduce 5% biofuels in the Council fleet	Geoff Hazlehurst	April 2008	Nil	Nil	N/A	36	1
Link car lease scheme to CO <sup>2</sup> emissions	Personnel	April 2008	Nil	Nil	N/A	TBD	TBD
Review current mileage scheme and link to CO <sup>2</sup> emissions	Personnel	2009/2010	Nil	Nil	N/A	TBD	TBD
Improve analysis of fleet fuel consumption data	Service Managers	April 2009	Nil	Nil	N/A	125	1-2
Staff Commuter Initiatives to reduce the carbon emitted by employees and Members of Halton Borough Council as part of their normal 'home to work' commuting or business related travel							
<b>OTHER</b>							
Street lighting pilot scheme to change switching levels on lights	Steve Rimmer	2009/10	£20,000 - £30,000	2,000 pa	Subject to Invest to Save budget	15	10
Virtualisation of IT Servers	Julie Birchall	Aug 2008			To be met from IT Capital Programme	40-50	
Development of a sustainable procurement policy	Jean Morris	2009/10	TBD	TBD	TBD	TBD	TBD

## Halton Borough Council Strategy & Implementation Plan



Action 2008 - 2013							
Project	Responsibility/Lead Officer	Timescale	Cost (s)	Cost Saving	Funding	Potential carbon savings	Pay Back (years)
TOTAL(S)			£1,238,820	£455,363		4891 (20.2%)	
<b>CORPORATE MANAGEMENT</b>							
To ensure that carbon management becomes integral to the way in which the authority delivers its services, it is important that it becomes part of the performance management systems of the Council.	Rob Mackenzie	2008/9	Nil		To ensure carbon management is integrated into the 2008/09 Service Plans	N/A	
<b>DATA COLLECTION &amp; MONITORING</b>							
To ensure that the Carbon Management Action Plan is effectively monitored there will be a need to set up systems for the collection and management of carbon emissions data	Jim Yates	2007/08	Nil		Establish systems to collect carbon emissions data on an ongoing basis	N/A	
Maintain central database of carbon emissions for the authority	Jim Yates	2007/08	Nil		N/A	N/A	

## 4.2 Implementation Plan Summary

Key milestones for the implementation of the Strategy are shown below.

### Key Milestones

#### Implementation Plan Summary

Draft SIP to Carbon Group	23 January 2008
Draft SIP to Carbon Trust	31 January 2008
Draft SIP to Management Team/Executive Board/ Corporate Board PPB	February/March 2008
Launch SIP	March 2008
Plan and Implement Actions	April 2008 onwards
Monitor SIP	Ongoing
Review and Update SIP	April 2009

## 5 IMPLEMENTATION PLAN FINANCING

The potential financial benefits to the Council from implementing the carbon management strategy are significant. Energy costs are predicted to rise significantly over the next few years.

Increasing energy and fuel costs and rising levels of consumption over previous years have meant that these areas are key pressures resources for the Council. The Council intends to commit resources to the following projects to reduce its energy consumption and related costs energy.

By not investing in carbon reduction opportunities it is likely that the combination of increasing costs and consumption will continue to place considerable pressure on Council budgets over the coming year.

The Council has identified funding from its Invest to Save budget as follows:

	<b>Total Costs</b>	<b>Cost Savings</b>
Install powerperfectors in buildings	£137,000	£40,000pa
Culture change programme (buildings/schools)	£10,000	£60,000 pa
Programme of energy efficiency work - Halton Stadium	£49,000	£18,000 pa
Networking of computers to multi functional devices	£60,000	£80,000 - £120,000 over three years
Programme of energy efficiency works - Runcorn Town Hall	£230,230	£13,750
Capital projects in schools	£147,011	£4,130pa

The Council will continue to explore the feasibility of establishing a payback energy efficiency fund match funded by Salix to improve energy efficiency in its buildings.

**6 STAKEHOLDER MANAGEMENT AND COMMUNICATIONS**

**6.1 Stakeholder Management**

The strategy has been developed with the support of Officers from across the authority. The Executive Director Environment and the Executive Board Member Environment have provided senior management and political support respectively. Officers from Property Services, Fleet Management, Schools, Street Lighting, Transport, Waste, Policy, Procurements, Building Control and Support Services have helped develop the base line and action plan. The Officers will be key to ensuring the delivery and the actions in the strategy over the coming months.

In addition, as actions are implemented it will be necessary to engage more widely with:

- The Executive
- Elected Members
- Senior Managers
- Operational Managers
- Other Council staff

Without the support of all the above stakeholders it is unlikely that the Council will achieve all the cost and emission savings identified in the Plan. The Communication Plan sets out how this programme will communicate and engage with each of these key stakeholder groups.

**6.2 Communication Plan**

The process of communicating actions and successes to relevant staff is integral to the success of the planned activities. The Council is currently developing a communication strategy as part of its culture change programme.

A brief summary of the proposed communication plan is set out below.

As part of this approach a series of events will be planned to raise the profile of carbon management within the Council together with regular features on progress including energy saving tips and advice relevant to the work place. The approach will be finalised in the coming months. Through its culture change programme the Council intends to develop a network of energy champions to promote and encourage energy awareness.

Stakeholder Name/Group	Issues	Key Messages	Means of Communication	When	Responsibility
Officer Sponsor	Progress against Action Plan		Face to Face meetings	Monthly	Project Co-ordinator
Member Sponsor	Progress against action Plan		Face to face meetings	Monthly	Project Co-ordinator
Core Team	Progress against Action Plan		E mail, phone, meetings	Monthly meetings	Project Co-ordinator
Strategic Directors	Need to maintain top- level commitment for programme.	Need to demonstrate business case for capital investment	Reports to Management Team	Quarterly	Project Co-ordinator
2 <sup>nd</sup> /3 <sup>rd</sup> tier Managers	Secure support for Programme, may not be seen as a priority, capacity and resources, lack of awareness	Issue is a Council priority, lots of small actions can collectively make a	Carbon Management bulletins including details of quick wins Intranet Resource	Monthly  Monthly As required As required	Communications  Communications Project Co-ordinator/Comm

Stakeholder Name/Group	Issues	Key Messages	Means of Communication	When	Responsibility
		difference, Opportunity to save money to reinvest in services	Targeted briefings Pilot studies		Communications Project Co-ordinator
All staff	Success of Programme will depend on their cooperation, need to challenge myths, ie “switching off in not worth it”, may not see as their issue	Money saved may help secure jobs, success needs their involvement, Small actions can collectively make a difference	In Touch Intranet Awareness campaign Switch off Days	Monthly Continuous Launch Sept 07 Sept 07 thereafter Monthly	Communications Communications Communications  Project Co-communications/C ommunications
Residents	Engagement key to success in wider community	The Council will lead by example and small actions collectively make a difference	Inside Halton, Internet & awareness campaign	Quarterly, Continuous TBC	Communications Communications Communications

**7 SIP Governance, Ownership and Management**

**7.1 Main roles and responsibilities**

Progress with the Carbon Management Programme will be responsible for co-ordinating information on progress in the various areas and reporting back on carbon savings.

The Strategic Director Environment will be responsible for reviewing the strategy. The table below shows the key people within the Council with responsibilities for overall management of the strategy.

Carbon Management Implementation Plan Responsibility table.

Activity	Member/Senior Manager	LACMP Co-ordinator	Carbon Management Core Group	Other
Carbon Management Implementation Plan	Dick Tregear Cllr Phil Harris	Jim Yates/ Debbie Houghton	Core Team	
Carbon Management - Buildings	Dick Tregear Cllr Phil Harris	Jim Yates/ Debbie Houghton	John Hughes	
Carbon Management - Fleet Vehicles	Dick Tregear Cllr Phil Harris	Jim Yates/ Debbie Houghton	Geoff Hazlehurst	
Business miles	Dick Tregear Cllr Phil Harris	Jim Yates/ Debbie Houghton	Council Solicitor	

Activity	Member/Senior Manager	LACMP Co-ordinator	Carbon Management Core Group	Other
Procurement	Dick Tregea Cllr Phil Harris	Jim Yates/ Debbie Houghton	Jean Morris	
Schools	Dick Tregea Cllr Phil Harris	Jim Yates/ Debbie Houghton		
Communications	Dick Tregea Cllr Phil Harris	Jim Yates/ Debbie Houghton	Michelle Baker	
Street Lighting			Stephen Rimmer	

## 7.2 Risk

The main risks associated with delivery of this strategy as set out below:

RISKS	CONTROLS
Lack of participation from stakeholders	Regular report to highlight financial and environmental benefits of projects,  Build actions into personal objectives.
Capacity issues for individual stakeholders	Embed carbon management in to day to day management
Lack of financial resources allocated to programme	Seek opportunities for attracting external funding  Use key arguments linked to sustainability

## 7.3 Reporting and Evaluation

Targets will be reviewed annually through the Carbon management Group (in consultation with the Strategic Director Environment and the Executive Board Member Environment, Leisure and Sport. Further actions identified and developed throughout the period of the Strategy will be considered for inclusion in the annual review. The Carbon Group will meet bi-monthly to monitor progress against the individual outcomes.

Progress against actions will be monitored through the Carbon Management Group with quarterly reports to Management Team, the Executive Board and the Corporate Policy & Performance Board .

Achievements will be communicated to stakeholders as detailed in the Communications Strategy (see Section 6.2)

<b>Project / Action:</b> Installation of Powerperfectors in Council Buildings	
Description and notes	<p>The powerperfector's main feature is its ability to optimise and improve the source voltage for a whole site and therefore cut energy consumption and thus costs.</p> <p>Operating electrical equipment at higher than optimum voltages leads to significantly higher energy consumption. Equipment like lighting and motors consume more power at higher voltages.</p> <p>Powerperfectors to be installed in the following buildings</p> <ul style="list-style-type: none"> <li>▪ Halton Stadium</li> <li>▪ Municipal Building</li> <li>▪ Widnes Market</li> <li>▪ Contact Centre</li> <li>▪ Arts Centre</li> <li>▪ Waterloo Business Centre</li> <li>▪ Kingsway Learning Centre</li> <li>▪ Training Centre</li> <li>▪ Rutland House</li> <li>▪ Runcorn Town Hall</li> </ul>
Quantified costs and benefits	<p>Powerperfector claim that savings of up to 20% on electricity can be made. Councils that have introduced similar measures confirm that have made savings between 15-20%. Savings of 10% are assumed for this project.</p> <p>Financial Cost £137,000 Emissions reduction 206 tonnes CO<sub>2</sub> per annum based on total electricity demand from these buildings of 4,791,516 kwh (2972.3 tonnes CO<sub>2</sub>) Financial Saving £36,010 per annum based on kwh price of 8p Pay back period 3-4 years</p>
Resources	Funding secured through Council Invest to Save Fund
Ownership and accountability	John Hughes Head of Property Services
Ensuring success	<p>Risks - The timescales will be influenced by powerperfector themselves as they have to assess actual load</p> <p>Suitability of sites - Less reduction than anticipated.</p>
Performance / success measure	Reduction in electricity consumption in all sites
Timing	Project to commence April 07 with installation over the following 12 months
Sources of information and guidance	Other authorities that have successfully used powerperfectors.

<b>Project /Opportunity:</b> Programme of works to improve lighting, heating and water controls at the Stobart Stadium Halton	
Description and notes	<p>Following an energy audit at the Stadium a number of recommendations were made to improve lighting, heating and water controls. These include:</p> <ul style="list-style-type: none"> <li>▪ fitting proximity detectors in various stands</li> <li>▪ change light fittings to low energy fittings</li> <li>▪ boiler controls to enable one boiler and pump at a time</li> <li>▪ thermostat controls to the AV handling unit</li> <li>▪ thermostat radiator valves to all radiators</li> <li>▪ timer controls to be fitted to hot water boiler</li> <li>▪ water boilers fitted with time clocks</li> <li>▪ all wash basins to be fitted with push taps</li> <li>▪ solar film fitted on south facing windows</li> <li>▪ rainwater redirected to storage tank</li> </ul>
Quantified costs and benefits	<p>Financial investment - £49,000 Emissions reduction - 20 tonnes CO<sub>2</sub> Financial Savings</p> <p>£10,000 - 2007/08 £18,000 - 2008/09 £20,000 - 2009/10 £20,000 - 2010/11</p> <p>Payback period - 3 years</p>
Resources	To be funded by Invest to Save budget
Ownership and accountability	Chris Patino - Stadium Manager
Ensuring success	<p>Success factors - completion of work programme</p> <p>Risks - N/A</p>
Performance / success measure	Reduction in energy consumption of the Stadium
Timing	Programme to start - 2008/09
Sources of information and guidance	



<b>Project /Opportunity:</b> Programme of Energy Efficiency Measures - Runcorn Town Hall	
Description and notes	<p>The refurbishment of Runcorn Town Hall is being carried out between July 2007 and June 2008. This provides an opportunity to install energy saving measures into the refurbishment. As part of the refurbishments it is proposed to install:</p> <ul style="list-style-type: none"> <li>▪ photovoltaic panels</li> <li>▪ lighting controls</li> <li>▪ triple glazing</li> <li>▪ brise soleil</li> </ul>
Quantified costs and benefits	<p>Financial costs £192,500                      Emission reduction - 55 tonnes                      Financial savings                      Payback period</p>
Resources	To be funded from refurbishment costs
Ownership and accountability	John Hughes Head of Property Services
Ensuring success	Implementation of efficiency measures in refurbished building
Performance / success measure	Reduction in energy consumption of the Town Hall
Timing	July 2007 - June 2008
Sources of information and guidance	

<b>Project /Opportunity:</b> Lighting Upgrades Various Buildings						
Description and notes	<p>This project consists of the replacement of old light fittings and tubes together with the introduction of lighting controls where appropriate within a number of the larger corporate building within the authority.</p> <p>The new lights consist of the latest energy efficient type fittings which use considerable less energy than the existing fittings.</p>					
Quantified costs and benefits	<b>Building</b>	<b>cost</b>	<b>Saving in KWh/ annum</b>	<b>Cost saving</b>	<b>T CO<sub>2</sub> saving</b>	<b>Payback period/ years</b>
	Grosvenor House	£16,950	17,264	£1,387	5.1	12
	Rutland House	£12,700	13,780	£1,146	4.1	11
	Training Centre	£7,620	18,975	£1,524	5.5	5
	Kingsway Centre	£8,250	32,175	£2,059	16.8	4
	Municipal Building	£21,150	82,500	£5,280	43.1	4
	Catalyst House	£7,000	21,750	£1,750	11.3	4
	<b>Total</b>	<b>£56,720</b>	<b>186,444</b>	<b>£13,146</b>	<b>85.9</b>	
<p>Costs savings based on electric cost of 8.032pKWh @ sub 100 sites &amp; 6.4pKWh @ half hourly sites.</p> <p>Electric conversion factors used 0.523kg CO<sub>2</sub>/KWh for plus 100kw contract 0.295kg CO<sub>2</sub>/KWh for sub 100kw contract</p> <p>Savings based on average usage of lights 8am to 5pm 5 days a week average 30% saving due to lighting controls.</p>						
Resources	Currently there are no resources to undertake this work. A bid will be made to the invest to save fund in respect of carrying out this work					
Ownership and accountability	<p>This project would be delivered through Property Services, the Head of Operations being responsible for it, with the Operation Director being ultimately accountable.</p> <p>Progress on the project would be reported to the Lead on the carbon management programme via property Services.</p>					
Ensuring success	The new type fittings have been proved to be more energy efficient and therefore will save energy, the actual amount will depend on the amount of hours the fittings are on for. It will not be possible to carry out an assessment of actual savings made based on meter readings due to there being a variety of other factors that affect energy usage. Savings can only be calculated by assessing the number of hours the fittings are on and multiplying this by the know energy consumption of the new fittings against the old.					
Performance / success measure	The measure of performance will be the overall reduction in energy consumption at the individual sites.					
Timing	Timescales are as yet unknown due to no funding currently being available.					
Sources of information and guidance	Data in respect for energy usage has been taken from our electrical consultants and contractors who carried out the feasibility into the replacement of light fittings on our behalf.					



<b>Project /Opportunity:</b> Corporate Maintenance Projects 2008/09					
Description and notes	There are a limited number of projects in the next financial year 08/09 which will have a positive impact on reducing carbon emissions. There are 2 replacement boiler projects converting from oil to gas together with one window replacement project.				
Quantified costs and benefits	<b>Building</b>	<b>Cost</b>	<b>Annual consumption KWh</b>	<b>Cost saving</b>	<b>saving in TCO<sub>2</sub></b>
	Picow Farm Depot Boiler	92,000	1,500,000	1500	50(25%)
	Glendale Boiler	23,000	80,000	160	4.4(25%)
	Inglefield windows	10,000	171,174	60(2%)	0.65(2%)
	Total				55.05
Savings based on 25% reduction in CO2 emissions when converting from oil to gas.(see below).  Gas conversion factors used 0.19kg CO2/KWh Cost savings based on a gas cost of 2.3p KW/h					
Resources	This work is all being carried out during the year 2008/09				
Ownership and accountability	These projects will be delivered through Property Services, the Head of Operations being responsible for them, with the Operation Director being ultimately accountable.				
Ensuring success	Success can only be established once a years worth of energy data has been collated to establish if a reduction in energy consumption has taken place.				
Performance / success measure	The measure of performance will be the overall reduction in energy consumption at the individual sites.				
Timing	Works completed in the year 2008/09				
Sources of information and guidance	The reduction in energy consumption within gas fired boilers as opposed to oil is taken from Carbon Trust data, GPG 381 Energy efficient boilers and heat distribution systems and GPG 369 Energy efficient operation of boilers. It is also based on a good practise case study undertaken at Belfast University.				

<b>Project /Opportunity:</b> Explore feasibility of creating a pilot payback fund for carbon reduction measures	
Description and notes	Much of the Council's building structure is old and in recent years has suffered from wider investment. The Council's carbon baseline shows that the majority of buildings are inefficient compared to the Carbon Trust's typical and good practice benchmarks. The Council currently spends in excess of £1m annually on fuel costs. Improving infrastructure through better lighting, heating and water controls and improved insulation could reduce costs.
Quantified costs and benefits	Financial costs - £250,000 set up to costs which potentially could be match funded by Salix creating a pot of £500,000.  Financial savings - dependent on schemes but a 10% reduction could realise savings of £100,000  Payback - dependent on schemes
Resources	Resources - subject to Invest to save scheme bid. Staff time in assessing/developing the fund.
Ownership and accountability	John Hughes - Head of Property Services  Jim Yates - LACMP Co-ordinator
Ensuring success	Key success  Improved business infrastructure Reduction of CO <sup>2</sup> emissions from buildings Implementation of energy efficiency schemes  Risks  Staff capacity Securing sufficient funding from Invest to Save budget  Payback periods under five years
Performance / success measure	Reduction in CO <sup>2</sup> from key buildings
Timing	2008/09
Sources of information and guidance	Carbon Trust Salix Energy Saving Trust

<b>Project /Opportunity:</b> Staff Awareness Campaign	
Description and notes	
Quantified costs and benefits	Develop an ongoing staff awareness campaign aimed at raising awareness about saving energy. To include developing a network of energy champions possibly linked to the waste champions scheme already in operation. Champions to take a lead in their service areas for ensuring behavioural change to reduce energy consumption.
Resources	<p>The Carbon Trust estimate that energy consumption can be reduced by about 5-15% through good housekeeping and raised staff awareness. A target of 10% reduction in energy due to staff awareness based on 2006/07 figures would achieve the following savings</p> <p>Financial estimate £ 100,000</p> <p>Carbon estimate 650 tonnes CO<sub>2</sub></p> <p>A quick walk around audit of the municipal buildings has shown that in many cases computes/printers are left on overnight, at lunch times and when staff are in meetings. Photocopiers, vending machines are also left on overnight.</p> <p>Halton Stadium has had an Energy Committee for the past six months and through the work of this Committee has realised real reduction on energy and subsequent savings. Between May – August 2007 energy usage has reduced each month by between 3,000-10,000 kwh.</p> <p>A budget of around £10,000 would be required for the campaign</p>
Ownership and accountability	<p>Corporate Marketing and Promotions Officer Overseen by the Carbon Management Group Strategic Directors would need to ensure that Energy Champions were able to participate in the initiative</p>
Ensuring success	<p>Develop sustained campaign Standard to be developed for each area</p> <p>Risk</p> <p>Staff not participating mitigate by linking to Energy champion scheme</p> <p>Lack of management support mitigate by linking Directors/DMTs to champion scheme</p>
Performance / success measure	Reduction in gas and electricity usage by 2% by April 2009 and by 10% by April 2013
Timing	Develop campaign and put in place Energy champion scheme by September 08
Sources of information and guidance	<p>Energy Saving Trust Salix Carbon Trust</p>

<b>Project /Opportunity:</b> Integrate carbon savings in the Building Schools for the Future Programme	
Description and notes	The Council is currently planning a large programme of school modernisation including rebuilding and refurbishment of buildings to fit in with the Government’s Building Schools for the Future programme. The programme is at the very early stages however is presents a considerable opportunity to choose designs that minimise carbon emissions.
Quantified costs and benefits	Financial costs and potential savings, emissions reductions and pay pack will be assessed as detailed design work is undertaken. Current spend on electricity and gas at the schools is £590,000 total CO <sup>2</sup> emissions are 4,731.4. The Council will seek to set targets to reduce costs and emissions.
Resources	Demand on staff time in BSF project team to building into the programme.
Ownership and accountability	Ann McIntyre Business Planning and Resources.  Daniel Hennessey - BSF Project Manager
Ensuring success	Success Factors - Ensure carbon management is identified as a priority in the BSF programme.  Risks - Financial pressures and other priorities do not allow carbon management considerations to be given sufficient priority.  Risk mitigation - early consultation with Project Team to ensure carbon management is built into the programme.
Performance / success measure	To be determined  All secondary schools are currently above the typical/good practice benchmark for energy usage (kwh/m <sup>2</sup> ). The Council will look to establish targets to build schools that are more in line with the typical good practice guidelines.
Timing	Depending on BSF programme
Sources of information and guidance	

<b>Project/Action:</b> Project to engage schools in the Carbon Management Programme	
Description and notes	<p>Schools account for 63% of the Council's energy usage (CO<sup>2</sup> tonnes and costs). Energy usage is likely to increase in schools as the use of ICT and other electric equipment schools and extended schools are encouraged.</p> <p>There is a significant opportunity to engage schools in the Carbon Management Programme and tap into the enthusiasm for pupils for environmental issues. The Council will need to engage with schools if it is to achieve its ambitious target reduction of 33% over the next five years.</p> <p>The baseline forecast indicates that energy usage at a high proportion of the Council's schools is well above the Carbon's Trusts typical and good practice standards. Whilst this may be in part due to the design of older buildings research suggests that through good house keeping schools can save between 5-15% of their energy consumption.</p> <p>The overall aim of the project would initially be to pilot in primary schools a scheme to raise energy awareness possibly linked through the Eco Schools Programme. The programme would focus on:-</p> <p>Reduction in schools energy costs and carbon emissions Improved energy efficiency in schools Energy efficiency in schools</p> <p>There may be an opportunity to link the programme to other council initiatives around transport and waste minimisation</p> <p>The project would comprise background research to identify examples of best practice locally and nationally and possible links to other programmes and funding sources</p> <p>Consultation with schools to identify levels of interest, key contacts, the nature of support schools would like.</p> <p>Provide advice to schools including</p> <ul style="list-style-type: none"> <li>▪ Ideas/examples for energy efficiency measures in schools</li> <li>▪ How to run an energy efficiency campaign</li> <li>▪ Case studies of good practice</li> <li>▪ No energy days/switch off campaigns</li> </ul>
Quantified costs and benefits	<p>It is anticipated that schools who become actively involved in the programme can achieve energy use reductions of between 5-15%</p> <p>A 10% reduction in emissions would create the following savings (based on 2006/07) energy consumptions.</p> <p>Financial savings estimate £130,000 Carbon Saving estimate 1960 tonnes CO<sup>2</sup></p>



<b>Project/Action:</b> Project to engage schools in the Carbon Management Programme	
Resources	<p>An overall project lead would be required perhaps within the corporate policy and performance team or within education</p> <p>Services/officers detailed below would need to actively participate</p>
Ownership and accountability	<p>The Project Manager should report to the Carbon Working Group</p> <ul style="list-style-type: none"> <li>▪ Policy Officer Environment</li> <li>▪ Building/Property Managers (Corporate and Education)</li> <li>▪ Communications and Marketing</li> <li>▪ Caretakers</li> <li>▪ Head teachers</li> <li>▪ Governors</li> <li>▪ Pupils</li> </ul> <p>It the scope of the project was widen this may need to include travel and waste officers.</p>
Ensuring success	<p>Success factors - Number of schools engaged in the project Reduction in energy use Number of schemes within schools</p> <p>Risks - Unable to engage schools in the programme Staff capacity</p>
Performance/success measures	<p>Number of schools engaged in the programme</p> <p>At least 5% reduction in schools energy consumption for participating schools</p> <p>Target of 15% reduction by 2013 for leading schools Number of schools with energy efficiency projects</p>
Timing	Pilot Project with identified schools commencing April 07
Sources of information and guidance	<p>Carbon Trust Energy Saving Trust Best Practice Councils Councils in previous phases of the Local Authority Carbon Management Programme</p>

<b>Project /Opportunity:</b> Energy efficiency resources to be considered as part of the schools capital repairs budget	
Resources	This work will be carried out during the year 2008/09
Ownership and accountability	These projects will be delivered through Property Services, the Head of Operations being responsible for them, with the Operation Director being ultimately accountable.
Ensuring success	Success can only be established once a years worth of energy data has been collated to establish if a reduction in energy consumption has taken place.
Performance / success measure	The measure of performance will be the overall reduction in energy consumption at the individual sites.
Timing	Works completed in the year 2008/09
Sources of information and guidance	The reduction in energy consumption within gas fired boilers as opposed to oil is taken from Carbon Trust data, GPG 381 Energy efficient boilers and heat distribution systems and GPG 369 Energy efficient operation of boilers. It is also based on a good practise case study undertaken at Belfast University.

<b>Project /Opportunity:</b> Networking of printers to multi functional devices	
Description and notes	The Council currently has in excess of 900 printing devices. Predominantly, these printers are stand along and when the existing contract runs out in October 2008, the Council is looking to develop print solutions that takes advantage of new technologies and moves the Council a solution that takes advantage of networked, multifunctional devices and reduces the number of printers in the organisation.
Quantified costs and benefits	Financial Investment - potential set up costs for additional server capacity to run print software - £60,000.  Emissions reduction - 50-60 tonnes  Financial savings approximately £159,000 - £200,000 over period from reduced toner costs and replacement equipment. Payback period 2-3 years.
Resources	Staff time from IT, procurement unit, Print Services and Committee and Member Services. Funding secured from Invest to Save budget.
Ownership and accountability	Pauline Lowe, Committee & Member Services
Ensuring success	Ensuring success - Appointment of new partner and implementation of new contract. Reduced no of devices.  Risks - developing solution (may give rise to technical if difficulties with network - staff resistance)  Risk mitigation - complete audit of buildings/pilot projects prior to full implementation
Performance / success measure	To reduce existing print costs. Reduce volume of paper consumed annually, to reduce number of print devices in the Council by x% (to be determined following initial audit)
Timing	Introduce between July - October 2008
Sources of information and guidance	

<b>Project /Opportunity:</b> Consideration of renewable energy for Council buildings	
Description and notes	<p>Renewable energy is a fast developing area of technology and offers opportunities for reducing the Council's carbon footprint. However, renewable solutions may only be appropriate in certain circumstances. Potential technologies that could be considered include:</p> <ul style="list-style-type: none"> <li>▪ Photovoltaic</li> <li>▪ Wind turbines</li> <li>▪ Biomass</li> <li>▪ Solar water heating</li> </ul> <p>Within the life time of the plan the Council will seek to evaluate the potential to integrate renewable energy within its portfolio and consider as part of any major building refurbishment.</p>
Quantified costs and benefits	<p>The Council has a total portfolio of 65 buildings. A reduction of 5% of the Council's electricity consumption from renewable sources by March 2013 could deliver substantial savings.</p> <p>Investment would be dependent on the type of renewable technologies pursued. It is likely that the payback for renewable schemes will generally be larger than traditional energy projects but renewable energy projects can help the Council meets its emissions targets and send a strong message to the wider community about the Council's commitments.</p>
Resources	Dependent on schemes to be considered. Other sources of funding/grants may be available.
Ownership and accountability	Head of Property Services/Strategic Director Environment
Ensuring success	<p><b>Key successes</b></p> <p>Visible commitment to carbon reduction encourages wider community</p> <p>Reduced emissions</p> <p><b>Risks</b></p> <p>Availability of funding Management capacity</p>
Performance / success measure	Dependent on implementation of schemes
Timing	Within time frame of action plan
Sources of information and guidance	Carbon Trust Energy Saving Trust Salix

<b>Project</b> : Fleet vehicles – use of 5% biodiesel mix	
Description and notes	Use of 5% biodiesel mix for fleet vehicles
Quantified costs and benefits	Currently cost neutral Saving 36 tonnes of CO <sub>2</sub> per yr (based on 393430 litres of white diesel with a 5% bio mix.
Resources	No additional resources currently required
Ownership and accountability	Geoff Hazlehurst
Ensuring success	Continued supply (risk that supply may not be able to meet demand in the future)  Risk that cost of biodiesel may increase  Limited to a 5% mix to ensure vehicle warranties are maintained  Mixed on site but cannot be stored for lengthy periods
Performance / success measure	36tonnes CO <sub>2</sub> saved per year.
Timing	5% Biodiesel mix is now being used for all diesel fleet vehicles
Sources of information and guidance	CO <sub>2</sub> emission data provided by manager (from supplier) Fuel consumption data from manager

<b>Project /Opportunity:</b> Link Car Lease Scheme to CO <sup>2</sup> Emissions	
Description and notes	<p>The Council operates a car lease scheme for its employees. The cost of a lease car is dependent on the type of vehicle chosen and is dependent on the level of CO<sup>2</sup> emissions.</p> <p>At present, there is no limit to the Council's scheme on CO<sup>2</sup> emissions. In order to encourage and promote environment sustainability, it is proposed to limit the lease scheme to cars that have emissions ratings of 200kg/km of CO<sup>2</sup> or below. This would exclude the most polluting vehicles from the scheme.</p>
Quantified costs and benefits	<p>Financial investment - Nil                      Emissions reduction                      Financial savings - Nil                      Payback period - N/A</p>
Resources	Staff time
Ownership and accountability	Personnel/Divisional Manager Customer Services
Ensuring success	<p>Success factors</p> <p>Reduction in CO<sup>2</sup> emissions from lease scheme</p> <p>No vehicles above 200 kg/km supported by Council through the lease scheme</p> <p>Risks</p> <p>Trade Union restrictions                      Staff resistance</p>
Performance / success measure	Reduction in CO <sup>2</sup> emission from lease scheme
Timing	April 2008
Sources of information and guidance	

<b>Project /Opportunity:</b> Review Current Mileage Scheme and Link CO <sup>2</sup> Emissions	
Description and notes	The Council's existing business mileage scheme is based on engine capacity with allowances increasing in line with the increased CC of a vehicle. It is proposed to review the scheme and replace the current method of determining mileage payments using engine cc with a CO <sup>2</sup> emissions banding.
Quantified costs and benefits	Financial costs - staff time  Emissions reduction - to be determined on implementation of the scheme. A 100% reduction in emissions for the scheme would save 64 tonnes CO <sup>2</sup>  Financial savings - a 10% reduction in costs would save £80,000 per annum.
Resources	Staff project team to be determined
Ownership and accountability	Council Solicitor/Strategic Director Environment
Ensuring success	Key success  Reduction in business miles/CO <sup>2</sup> emissions Reduction in CO <sup>2</sup> linked to business trend  Risks  Trade Union negotiations Staff resistance
Performance / success measure	Reduction in CO <sup>2</sup> from business travel
Timing	Commence 2008/09
Sources of information and guidance	Energy saving Trust Carbon Trust

<b>Project /Opportunity:</b> Improve analysis of fleet fuel consumption	
Description and notes	The Council currently records fuel consumption for individual service areas. Improved monitoring of information by service managers to individual vehicles will enable efficiency measures to be recorded and enable optimum use of fuel resources and help identify which vehicles are inefficient.
Quantified costs and benefits	Financial costs - within existing resources  Emissions reduction - a 100% reduction in fuel consumption could save 125 tonnes CO <sup>2</sup> per annum.  Financial savings - a 10% reduction in fuel consumption could save £35,000 per annum
Resources	Managers time to monitor consumption of their vehicle fleet.  Fleet management time to distribute data.
Ownership and accountability	
Ensuring success	<b>Key success</b>  Reduction in annual fuel consumption. Improved fuel management information.  <b>Risks</b>  Management capacity
Performance / success measure	Reduction of annual fuel consumption
Timing	April 2008
Sources of information and guidance	



<b>Project / Action: Staff Commuter Initiatives</b>	
Description and Notes	<p>The introduction of an integrated package of measures designed to reduce the carbon emitted by employees and Members of Halton Borough Council as part of their normal ‘home to work’ commuting or business related travel. Proposed measures include:-</p> <ul style="list-style-type: none"> <li>▪ Greater use of car share by employees between key Council sites;</li> <li>▪ Priority car share parking spaces to introduced at all key sites;</li> <li>▪ Provision of transferable public transport tickets for work related journeys – available at key locations;</li> <li>▪ Wider marketing and provision of ‘pool bikes’ for short journeys under 3 miles;</li> <li>▪ Increased mileage rates for car share’s and cyclists;</li> <li>▪ Introduction of discounted annual public transport passes to employees through the salary sacrifice scheme;</li> <li>▪ Provision of pre bookable and demand responsive ‘door2door’ transport for employees for business related journeys;</li> <li>▪ Requirement for all business related journeys over 25 miles to city centre locations shall where possible be made by train or other public transport;</li> <li>▪ Provision of more prominent mobility management information in the workplace.</li> </ul>
Quantified Costs and Benefits	Reduction of 192 cross river business related single occupancy car trips per week. Of which 60% (115) a new car share journeys and 30% public transport (58) and the remainder 10% cycling (19 trips).
Resources	Provided using existing committed resources.
Ownership and Accountability	Dave Hall Section Leader Transport Co-ordination.
Ensuring Success	Full management buy in and good promotion. Requirement to relaunch and rebrand Council Staff Travel Plan. Also need a champion Member and Senior Officer to steer the campaign.
Performance / Success Measure	Measured through staff surveys and expense claims.
Timing	Phased in over 12 months.
Sources of Information / Guidance	TravelWise and National Commuter Travel Plan Association.

<b>Project /Opportunity:</b> Pilot scheme to change switching levels on street lights	
Description and notes	The Council has a street lighting portfolio of approximately 20,000 columns. The total spend on street lights is in excess of £1m per annum. By changing the switching levels on columns from 75 lux to 55 lux there is a potential to reduce the time lights are on by 8 minutes per day. It is estimated that there is a cost of £30 per column to fit the charging switch.
Quantified costs and benefits	Financial costs - £20,000 - £30,000  Emissions reduction - 5% reduction in emissions, 25 tonnes of CO <sup>2</sup> based on trial of 1,000 columns  Financial savings  Payback
Resources	Financial resources - subject to bid to Invest to Save budget.
Ownership and accountability	Stephen Rimmer Head of Street Lighting
Ensuring success	<b>Key success</b>  Switching levels fitted to street columns  <b>Risks</b>  Securing financial resources
Performance / success measure	5% reduction in emissions and costs
Timing	2008/09
Sources of information and guidance	

<b>Project /Opportunity:</b> Development of a sustainable procurement policy	
Description and notes	The Council through its procurement team had indicated a number of schemes to encourage a more sustainable approach to the Council’s procurement arrangements. The Council wishes to extend these and develop a sustainable procurement policy across the organisation.
Quantified costs and benefits	Financial costs - as yet unidentified Emissions costs - as ye unidentified
Resources	Dedicated staff time to develop policy
Ownership and accountability	Head of Procurement
Ensuring success	
Performance / success measure	
Timing	2009
Sources of information and guidance	Carbon Trust IDeA Energy Saving Trust