



# Local Authority Carbon Management Programme

## Strategy and Implementation Plan (SIP)



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## Foreword by 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 like Brent 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 emission*

*“Wigan Council was selected in 2006, amidst strong competition, to take part in this ambitious programme. As one of the most proactive councils in the UK in responding to the risks that climate change presents Wigan has joined the 98 councils across the UK who have to date partnered with the Carbon Trust on this programme in order to realise vast carbon and cost savings.*

*“This Carbon Management Strategy and Implementation Plan commits the council to a target of reducing CO2 by 15% by 2011*

*“There are those that can and those that do. Local authorities can contribute significantly to reducing CO2 emissions. The Carbon Trust is very proud to support Wigan Council in its ongoing implementation of carbon management”.*

A handwritten signature in black ink, appearing to read 'Richard Rugg'.

Richard Rugg  
Public Sector Manager  
Carbon Trust



## 1 Management Summary

As the global demand for fossil fuels outstrips supply and Governments around the world attempt to reduce climate change, the moral and financial imperatives for Local Authorities to take a leading role in carbon management are greater than ever. The Carbon Management Strategy and Implementation Plan (SIP) presents the position of Wigan Council and shows the significant cost implications of doing nothing.

Political instability in regions of the world where the remaining major reserves of fossil fuels are to be found, together with increasing world demand for energy, has resulted in significant increases in energy costs. The Council has previously enjoyed low energy prices due to their involvement with Yorkshire Purchasing Organisation (YPO) however, even with the resources of the procurement consortium, the Council suffered an 80% increase in energy prices at the last renewal date.

The Consultants who assist the Council in purchasing energy expect the costs to continue rising. The Energy Management Policy was adopted by the Council in February 2002, however, it is now evident that the energy use and carbon reduction regime needs to be improved and updated. The Carbon Trust's Local Authority Carbon Management Programme (LACMP) was recognised to complement several of our Energy Management key objectives and the Council was successfully selected to take part in the fourth round of the programme in April 2006.

The following objectives of our Energy Management Policy are furthered by our participation in the Carbon Management Programme:

- Promote the understanding of energy management and carbon reduction by Members of the Council, our employees, partner organisations and our communities and raise awareness of the need to work towards sustainable objectives.
- Include energy and carbon reduction considerations into our decision making processes so that it becomes part of everything that we do.
- Seek out good practice in other organisations, publicise and share our own successes and good practice and provide a positive role model for others.
- Minimise emissions of carbon dioxide and other greenhouse gases resulting from our activities or from the services we provide.
- Maximise the use of renewable and sustainable technology.

This SIP sets out the framework for the reduction of the Council's carbon footprint with the intention to reduce carbon production by 4,449 tonnes by 2011/12. This will be done by a mixture of engineered works, incorporating renewable energy sources, and the education of our staff with the use of awareness campaigns.

A Carbon Management Team has been created with members from all Departments, and it will be their responsibility to drive the SIP forward.

Yearly targets for carbon reduction have been set, and a framework created to allow the Carbon Management Team to update progress and take remedial actions if required.



In addition, Carbon Management supports the following aspects of the Council's Vision:

- Creating places people want to live in
- To make the Borough one of the most environmentally friendly in the region



## **2 Sign Off Sheet**



**2 Sign Off Sheet**

*"Climate change is one of the greatest challenges facing us all today. The effects on the Borough's communities, environment and economy could be far-reaching, which means we have a duty to act and to encourage others to do the same.*

*"We take our leadership obligations on climate change very seriously. Through the Carbon Trust's carbon management programme, we aim to reduce our energy use, lessen our impact on the environment and work with our partners to help make Wigan a place where people want to live."*

**Leader of the Council**

**Chief Executive**

*Smith of Leigh*

*J. R. Pearson*

**Project Sponsor  
(Member)**

**Project Sponsor  
(Senior Management)**

*D. Johnson*

*Mark Foster*



### **3 Introduction**

This Carbon Management Strategy and Implementation Plan (SIP), is the main output from the Carbon Trust's "Local Authority Carbon Management" programme.

The SIP details the sources of the Council's carbon emissions and establishes a baseline against which the effects of actions taken can be measured. It outlines the actions already taken to reduce emissions and quantifies the impact of doing nothing further, in terms of future carbon emissions and future costs.

Finally, it sets out the Council's approach towards energy and carbon management and identifies key actions for the Council to take to deliver reductions in carbon emissions.

It will be monitored regularly and reviewed annually to assess progress against the key milestones and targets set out within it and to consider further actions in future years.

#### **Background to the Carbon Management Programme**

The Energy Management Policy was adopted by the Council in February 2002 however, it is now evident that the energy use and carbon reduction regime needs to be improved. The Carbon Trust's Local Authority Carbon Management Programme (LACMP) was recognised to compliment several of our Energy Management key objectives and the Council was successful in its application to take part in the fourth round of the programme in April 2006.

The following objectives of our Energy Management Policy are furthered by our participation in the Carbon Management Programme:

1. Promote the understanding of energy management and carbon reduction by Members of the Council, our employees, partner organisations and our communities and raise awareness of the need to work towards sustainable objectives.
2. Include energy and carbon reduction considerations into our decision making processes so that it becomes part of everything that we do.
3. Seek out good practice in other organisations, publicise and share our own successes and good practice, and provide a positive role model for others.
4. Minimise emissions of carbon dioxide and other greenhouse gases resulting from our activities or from the services we provide.
5. Maximise the use of renewable and sustainable technology.

In addition, Carbon Management supports the following aspects of the Council's Vision:

- Creating places people want to live in
- Make the Borough one of the most environmentally friendly in the region

#### **Timescale**

The SIP identifies a range of measures to be taken to meet reduced emission targets by 2011. Some of the actions identified have already been implemented. Others require more detailed study and the allocation of finance and other resources to proceed.

## 4 Carbon Management Strategy

In this section the policy context for Carbon Management within Wigan Council is set out together with our vision for carbon emissions reduction targets. We also set out a strategy for achieving the targets.

### 4.1 Context and drivers

The Carbon Management SIP has been produced against a background of increasing energy costs and regulations, with the emphasis on the reduction of energy use. It is presumed that the Council's performance in this area will be measured both by the Audit Commission through existing and new CPA regimes and by the introduction of new national benchmarks, such as the EU Directive on the Energy Performance of Buildings. These combined issues of energy and carbon reduction are being addressed by the Council's Energy Management Policy and its Corporate Asset Management Plan.

The Asset Management Plan involves the comprehensive monitoring and review of the corporate building stock, and the Carbon Management SIP will complement this activity, feeding several key performance indicators directly into the programme.

Other significant drivers for Carbon Management within the Council include:

- To quantify the carbon emissions associated with running the Council, in order to identify priority areas for emission reduction action.
- To inspire staff and member participation in the implementation of the carbon management action plans through integrating carbon reduction initiatives into mainstream Council activities, Council policies and management systems.
- To promote carbon emissions reductions with our partners and embed the principles of sustainable developments in the Council's procedures and practices, as part of the wider corporate sustainability strategy
- To reduce energy costs in the Council's building stock through the introduction of fuel and space efficiency improvements.

### 4.2 Vision

The Council's vision for carbon reduction and energy management is set out below:

"The Council will, in its Carbon Management Programme, seek to inform, educate and listen to its Members, employees and local people regarding all aspects of carbon emission reductions and energy use management. It will strive to continually improve its emissions performance, and will measure itself against other similar Local Authorities and organisations. It will lead the community by example, working with partners to build strong communities and ensure that the Council is a place where people want to live."

### 4.3 Objectives and targets

#### 4.3.1 Strategic Objectives:

- To integrate carbon management into Council Corporate Procurement.
- To increase the use of renewable energy within the Borough.
- To deliver long term savings from managing carbon emissions.
- To inspire staff and Member participation in the implementation of the carbon management actions and initiatives.
- To work with other organisations within the Borough to raise awareness of carbon management and to share experience.



### 4.3.2 Targets

Following consultation with members of all departments, along with the Councils Partner Organisations (Wigan and Leigh Housing, Wigan Leisure and Cultural Trust), during the development of this SIP, the following target has been established:

- **A 15% reduction in overall Carbon emissions, (4,449 tonnes), by 2011/12.**

The target is measured against the “Business as Usual” projections for the Council. In order to achieve this measure, a considerable reduction in the energy use in schools is required. There are several difficulties with funding that will need to be overcome, not least the lack of any financial incentive for individual school budgets, which does not encourage investment to reduce running costs. A working group including members from Children and Young Persons, and Finance has been set up to resolve these issues.

The target is based on 2005/06 emission levels and can be further quantified using individual targets as below:

- Reduce carbon emissions in all building stock by 2,835 tonnes by 2011/12
- Reduce carbon emissions from corporate transport by 743 tonnes by 2011/12
- Reduce carbon emissions from street lighting by 871 tonnes by 2011/12

Carbon Reduction Targets		
Year	Target	Cumulative Target
2007/08	890	890
2008/09	890	1780
2009/10	890	2670
2010/11	890	3560
2011/12	889	4449

A review of the targets will be undertaken annually and reported to the Corporate Development Team for agreement on any updates required.

### 4.4 Strategy

In order to deliver the targets we will focus simultaneously on:

- Buildings (improving insulation, lighting and controls)
- Transport (increasing the use of bio fuels, reducing the use vehicles for short trips)
- Street lighting (improving lamp efficiencies, reducing power usage)
- Raising awareness
- Improving data gathering and monitoring
- Procurement processes

The Council has direct control of over 300 buildings including large corporate centres, a number of District Offices, depots, day centres and market halls. Recommendations for reducing energy use in these buildings from existing and future energy surveys will be prioritised and implemented. Improvements to the building fabric and installation of heating and lighting controls will be augmented by staff awareness schemes and incentives to reduce energy use.



School buildings are responsible for approximately 61% of the CO<sub>2</sub> emissions within the Council's activities, whilst Leisure Trust buildings account for around 10%, and although the Council is responsible for strategic issues related to buildings, the Trust, Wigan and Leigh Housing and each

school operate independently of the Council in most respects. A working group is looking at the funding process for these organisations.

We will engage the various stakeholders within schools, Children and Young People's Services, Wigan and Leigh Housing, and the Leisure Trust with seminars and Energy Awareness Days. Fuel Oil with its associated higher levels of CO<sub>2</sub> still makes a significant contribution to these buildings' energy use and will be specifically targeted. Potential opportunities include the replacement of oil heating systems with wood pellet or bio fuel, increasing the use of Solar Hot Water Systems, improved lighting controls and the further integration of the school and Trust estates with Building Energy Management Systems (BEMS) for centralised control and monitoring.

A ring fenced budget has been established (CPMF Fund 4 – Energy Management), which will be used to finance low cost energy reduction schemes identified within buildings. Other sources of funding including Prudential Borrowing will be sought for larger schemes such as: replacement wood pellet boilers, Solar Hot Water Schemes, Combined Heat and Power (CHP) units, and lighting upgrades.

Public display of the energy performance of Local Authority buildings is an obligation under the EU "Energy Performance of Buildings" Directive, which became UK law in January 2006. As such the Council intends to sign up to the Display™ campaign operated by Energie-Cites, being committed to displaying a building energy label in over 300 of our buildings. (See [www.display-campaign.org](http://www.display-campaign.org)). We will use this campaign to highlight energy consumption and carbon production throughout our schools and offices and out into the general community.

The Display™ Campaign will be augmented by the introduction of local Energy Champions, a number of trained volunteers (one from each building working group), who will be responsible for running awareness campaigns and highlighting energy matters within individual buildings. (The use of Energy Champions has been employed to great effect by the London Borough of Islington, resulting in 8% energy savings over a 10 week campaign (300 tonnes CO<sub>2</sub>, £45,000 P/A). In addition a web site is to be launched giving energy saving tips and information.

To improve the accuracy of our energy data, we have started introducing Automatic Remote Reading Meters (ARM) onto the highest energy using buildings and all "new build" projects. These meters will provide accurate readings to a central database, and will allow us to improve our management of energy use.

The central database is also to be improved by allowing internet access for budget holders (including schools), to check on their individual energy performance.

The Council already follows sustainable guidance in its purchasing policy, and ways will be sought to strengthen this and ensure adherence to this policy.

The Council will use its influence with its partners and peers to reduce the CO<sub>2</sub> emissions these organisations produce as a result of delivering services, (not just on our behalf), to a minimum.

## **5 Emissions Baseline and Projections**

In this section, carbon emissions, costs and breakdown by activity for the baseline year of 2005/06, are presented. Following this two scenarios are considered:



- Business as Usual (BAU), where current trends of energy use and costs are projected to 2011/12.
- Reduced Emissions Scenario (RES), where an active approach to carbon management is adopted and the effects of remedial actions are projected to 2011/12.

### 5.1 Scope

The scope we have set for our emissions baseline includes:

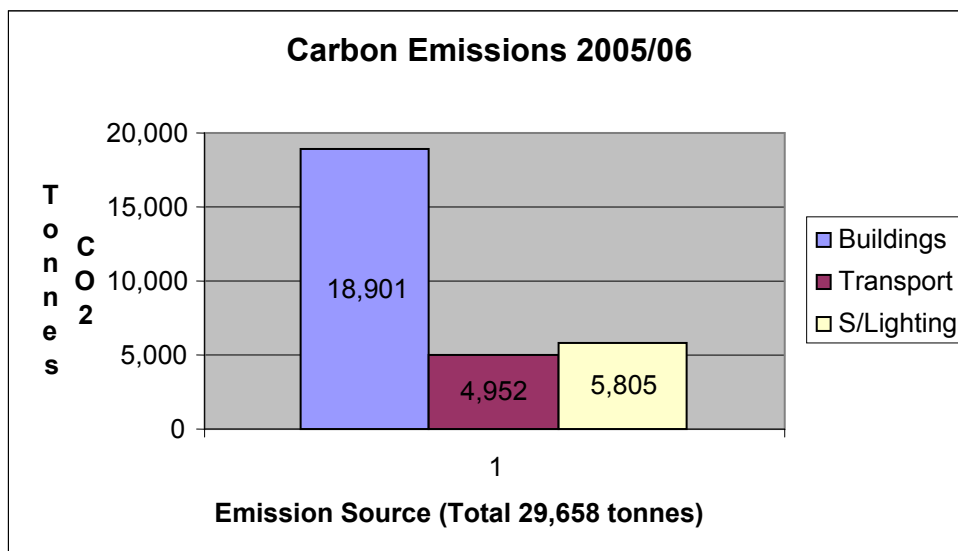
- Energy consumption in Council buildings and others including Diocesan Schools and housing estate (electricity, gas, oil other).
- Energy consumption by street lighting (electricity).
- Staff business travel.
- Vehicle fleet (fuel, type, total distance).

Staff commuting to and from work has been excluded from the baseline data due to the difficulty in obtaining sound data. However, influencing staff business travel behaviour is one of the Council’s major objectives.

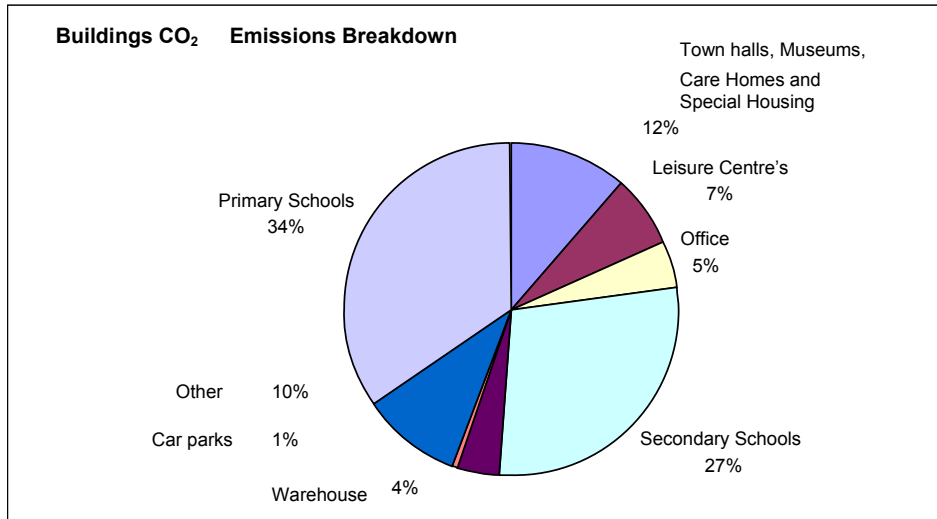
### 5.2 Baseline

The baseline year used in the projections is 2005/06. The total emissions by type for each category (buildings, transport and street lighting), is shown below. Overall CO<sub>2</sub> emissions for the Council in the baseline year were:

- **29,658 tonnes**



Buildings account for 64% of the emissions and the data is compiled from a mixture of actual readings and estimated bills. Installation of ARM meters will improve data production.  
 Transport accounts for 16% of emissions and is compiled from staff mileage claims and fleet fuel consumption.  
 Street Lighting accounts for the remaining 20%, and is compiled from actual lamp sizes and hours run.

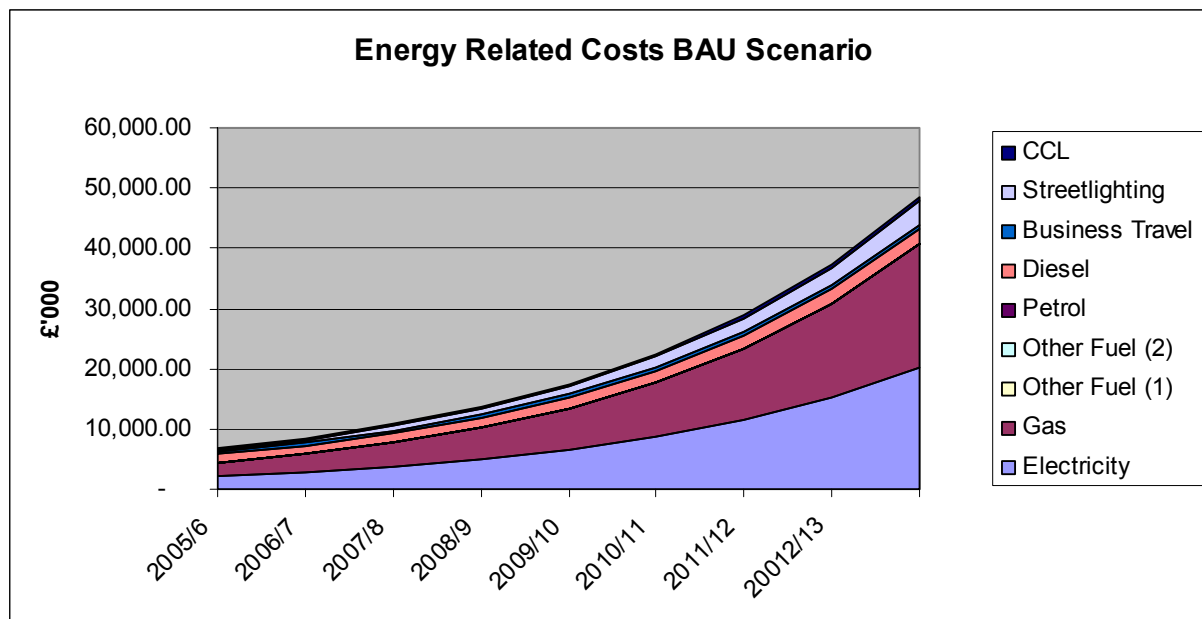


Further breakdown of the emissions produced by our building stock reveals that schools account for 61% of all CO<sub>2</sub> production. As noted earlier, in order to significantly reduce the schools energy consumption, funding issues will have to be resolved, with the possible use of incentives to encourage reductions.

### 5.3 Projections

#### 5.3.1 Business as Usual (BAU)

The projected energy cost for the BAU scenario has been calculated with the aid of a spreadsheet tool provided by the Carbon Trust. It shows the expected rise in expenditure up to 2014 from the base year with overall energy costs starting at £6,792,000. The BAU scenario assumes we do nothing to reduce the existing trends in energy use within the Council and takes account of industry expected price rises. This leads to a projected increase in energy costs to £22,414,000 per annum by the target year of 2011/12.



**Notes on projections:**

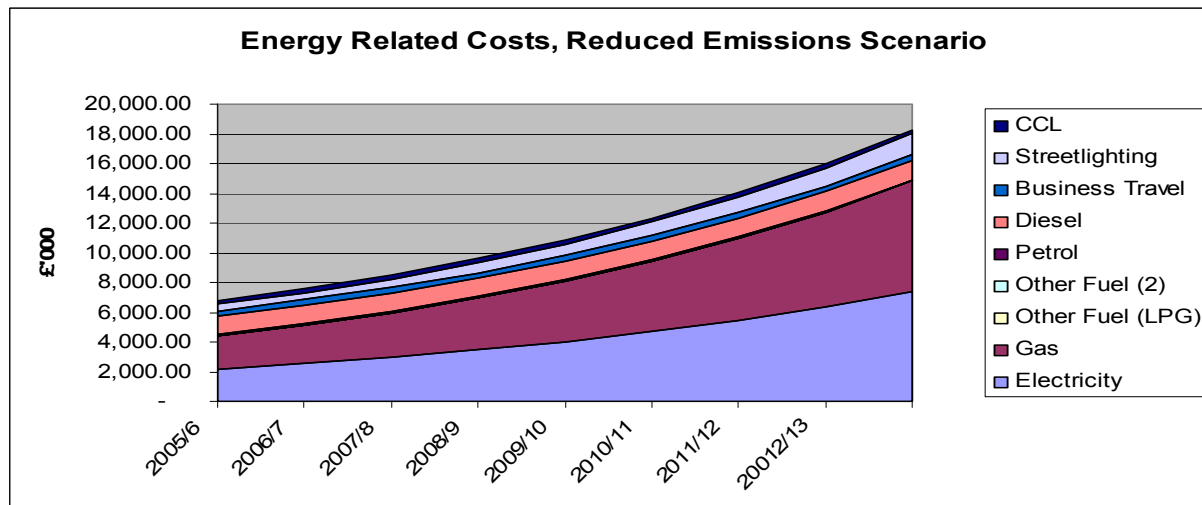
The Council’s energy contracts are renewed on a yearly or two yearly basis. Current contracts for Gas and Electricity are for two years ending in June and October 2008 respectively.

- Electricity costs +80% in November 2006, projected increase 20% P/A thereafter – use will continue to increase at present rate of 10% year on year.
- Gas costs +76% in July 2006 projected increase 20% P/A thereafter – use will continue to increase at present rate of 10% year on year.
- Transport Fuel costs rising at 5% per annum – use will continue to rise 5% year on year.

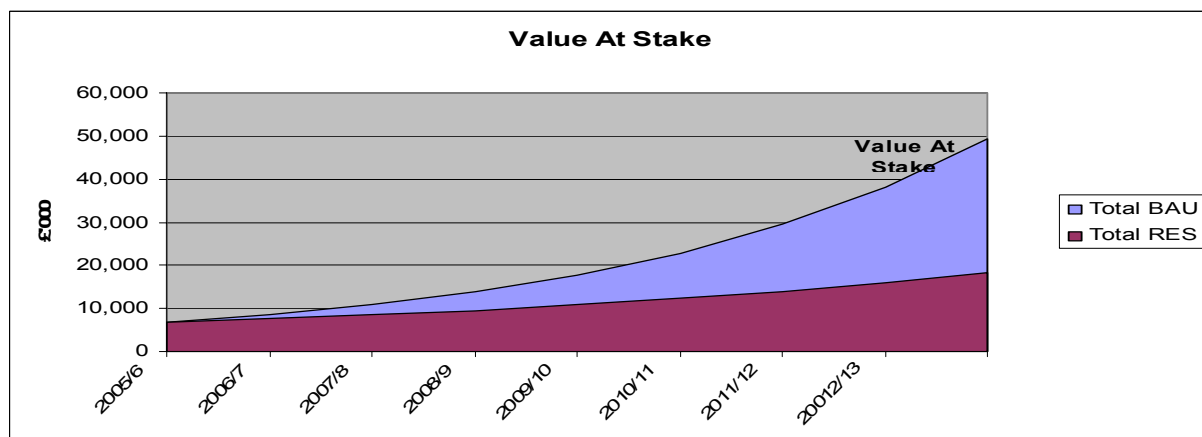
**5.3.2 Reduced Emissions Scenario (RES)**

A number of key actions (set out in section 4.4) have been identified that will deliver the target 15% CO<sub>2</sub> reductions. The projected energy cost savings from implementing the actions in the SIP are shown below. The projected reductions include the benefits accruing from recent projects including the installation of a CHP unit at Howe Bridge Sports Centre, Solar Hot Water at Hinning House outward Bound Centre Cumbria, and Powerperfector Voltage Optimisation at the Market Hall.

The energy costs of the RES are shown below.



The Value at Stake (VAS) between the two scenarios is £36,598,000 represented by the aggregated difference of the energy bills between now and 2011/12 and is shown graphically by overlaying RES onto BAU.



## 5.4 Past Actions and Achievements

### 5.4.1 Buildings

The Energy Management Unit of Wigan Council has implemented numerous energy efficiency measures across the estate, making use of an annual budget of £75,000. Over the past five years the unit has saved a total of 11.75 MWh<sup>1</sup> (1,175,000 kWh) of energy.

We have negotiated with our electricity suppliers to ensure that all of the Council’s major electrical using sites, (10,629 MWh or 51% of the Council’s total electricity use), are supplied from 100% renewable sources. This includes the Town Hall and Civic Centre.

We have arranged for the installation of four Combined Heat and Power (CHP) units, which provide over 1.3 MWh (£117,962) of free electricity every year. Plans are in place to provide more as funding is available.

The combined emissions reduction from these projects saved over 11,000 tonnes of CO<sub>2</sub> last year.



The unit has also helped to develop an intranet based communications system (the first of its kind in the country at that time), for our Building Energy Management Systems (BEMS), which allows a remote response to problems on site, along with greater control of the system.

More recently the unit has trialled a Solar Hot Water System at the Hinning House Outward Bound Centre within the Lake District National Park. This unit provides over 85% of the annual hot water requirements for the site, and supports the ecological aspirations of both the National Park and the Council.

In December 2006, Voltage Optimisation Equipment (from Powerperfector), was installed at the Market Hall in Wigan. Monitoring is carried out via Automatic Remote Meters (ARM), providing half hourly readings, and initial findings indicate that the unit is saving over 700 kWh of electricity and 318 kg of CO<sub>2</sub> per day. If this is extrapolated to a full 12 months then this gives projected annual savings of 218,400 kWh (£27,760) and over 99 tonnes of CO<sub>2</sub>. Simple payback of investment is achieved within 15 months.

<sup>1</sup> 1 MWh (Megawatt hour) = 1,000 kWh (kilowatt hours), 1 kilowatt hour = a 1bar electric fire burning for 1 hour.

Other measures implemented by the unit include:

- Lighting Controls in schools and offices.
- Passive Ventilation Systems to replace air conditioning units.
- Waste Water Recovery systems on schools.
- Automatic Urinal Flushing Controls.
- Push Taps.

### **5.4.2 Transport**

Wigan is the 12<sup>th</sup> largest Metropolitan Borough in the country, and with a population of 310,000, covers an area of 77 square miles. A great deal of the Borough is countryside with most of the population being centred in the two main towns of Wigan and Leigh, and the rest in the smaller towns around the area. This often makes service delivery more difficult and costly.

In the delivery of essential services (social services, education etc) Council staff travel more than 5 million miles per year. This generates 4,952 tonnes of CO<sub>2</sub> – 16% of total emissions, and costs over £1.7 million.

1. The transport fleet has been improved with the purchase of several LPG (liquefied petroleum gas) vehicles. LPG produces less CO<sub>2</sub> and NO<sub>x</sub> than both petrol and diesel, offering improvements to local air quality.

The Council's 11,400 staff is drawn from a large area, and the Council has a number of initiatives to reduce the impact of staff travel and to encourage the use of Public Transport where possible. A car



share scheme has been operating for a number of years, and special mileage rates are available for the use of bicycles on Council business.

### **5.4.3 Street Lighting**

Street lighting accounts for 36% of the Councils total electricity consumption, and is supplied with green electricity under a separate contract.

The street lighting team has already implemented a number of technical measures that have reduced electrical consumption including the use of more sensitive photocells and re-lamping using high frequency technology that consumes less than half of the energy of the old units.

Other measures being considered throughout the whole “Street Furniture” portfolio include traffic information signs and parking meters with inbuilt photovoltaic (PV) panels, to convert the suns energy into free electricity, and the possible use of small wind turbines on street lights.

### **5.4.4 Water**

Although not a producer of carbon emissions, and therefore not considered to contribute to “Global Warming”, water conservation is very important to the Council. In the base year the Council consumed over 183, 000 cubic meters of water, which in turn produced over 74 tonnes of CO<sub>2</sub>.

The Energy Management Unit has introduced a number of water conservation measures over the years, including the use of push taps on sinks in schools and offices, automatic presence detection flushing controls on urinals, and the use of dual flush cisterns.

More recently the Council has introduced the use of Rain Water Reclamation devices on “New Build” schools, which use harvested rain water to flush toilets within the site.

The Energy Management Unit is also trialling the use of specialist technology to remove the need for traditional water flushing on urinals.

Our initial target is a 15% reduction in use by 2011/12.

## **6 Carbon Management Implementation Plan**


The following sections set out the projects identified so far by the Carbon Management Programme and selected to deliver the reduced emissions target. All the projects listed in section 6.1 have been identified as easy to implement and very effective in operation. More projects will be added as surveys are conducted on the Council’s building stock, and the information gained is analysed. The Corporate Delivery Team will determine the appropriate timescale for delivery of each initiative and will monitor progress. Some items will need further consideration by CDT based on the information gleaned from pilot schemes.

### **6.1 Short listed actions and emission reduction opportunities**

#### **6.1.1 No Cost Options**

These are actions that may be taken during the course of normal activities, without affecting existing personnel, management, or financial resources. Total estimated saving – 3618 tonnes CO<sub>2</sub> P/A.



Technology	Description	Est. Cost	Est. Savings (tonnes CO <sub>2</sub> ) per annum
"Switch Off" signs and poster campaign		Staff time and administration	1,890
Nominated Energy Champions, CDT representatives at high level with nominated staff at lower levels	A team of volunteers, provided with training, responsible for energy savings within their buildings.		
Newsletter with ideas/tips	Bi-annual electronic newsletter		
Energy Performance in Buildings initiative - Certificates and Displays	Buildings are "Energy Rated" from A to G and the result is displayed in the entrance foyer. Soon to become a Government requirement.		
Reduce heating control temperature	Standardise on legal maximum of 19°C on all buildings. 1°C reduction in temperature = 10% reduction in costs.	Staff time and administration	1,394
Remove all personal electric heaters.	Acknowledges potential for complaints at the legal threshold.	Staff time and administration	334
Set default settings on printers to double sided and draft		Staff time and administration	To be determined
Timed shutdown of computers (Feasibility - to be further investigated by Central IT).	Enable automatic shutdown of computers after 10 mins of non use.	Staff time and administration	To be determined
Implement Standard Email autosignature	 please don't print this e-mail unless you really need to.	Staff time and administration	Not Quantifiable

### 6.1.2 Low Cost Options (Sub £100,000 in cost)

These are actions requiring investment at a relatively low level, possibly through existing Council funding that have been identified during the course of the LACM Project. Total estimated savings – 999 tonnes CO<sub>2</sub> P/A.

Technology	Description	Est. Cost	Est. Savings (tonnes CO) per annum
Pool Covers	Extendable covers that fit over a pool and eliminate heat losses and evaporation.	£55,000	710
PowerPerfactor System - Abraham Guest High School	Trial site - Electrical voltage reduction which lowers running costs and prolongs equipment	£35,000	6



	life.		
Install Solar Hot Water Systems - Trial High School	Vacuum Tube Solar Heaters to generate hot water - Trial already installed at Hinning House Cumbria to great success.	£14,500	25
Variable Drive Pumps	Highly efficient pumps that match their speed to current conditions.	£27,802	143
Low Energy Lighting Units	Removal of inefficient lighting and replacement with T5 low energy units in "Top 20" sites surveyed by Trident	£34,068	73
Smart Metering - Trial Top Twenty sites	Electronic remote metering, enabling the elimination of estimated reads and immediate pinpointing of over use.	£20,000	42
Screening of "An Inconvenient Truth"	Hire of cinema to show film on results of global warming.	£1,000	To be determined
Pool Bikes in main Admin buildings	Use of staff bicycles to go to local meetings instead of cars. Encourages leaving cars at home.	£4,000	To be determined
Waste recycling from offices	Ties in with government requirements to reduce land fill to 35% of 1995 levels by 2020. Lower operating costs than chilled bottled water with savings of over 107 kg of CO2 per delivery.	£42,743	To be determined
Replace bottled water with chilled mains		£12,648	80% Savings over Bottled Water Costs



### 6.1.3 High Cost Options (Over £100,000 cost)

These are actions requiring investment at a higher level, or possibly through prudential borrowing, which have been identified through the course of the LACM Project. Total estimated savings – 1489 tonnes CO<sub>2</sub> P/A.

Technology	Description	Est. Cost	Est. Savings (tonnes CO) per annum
Extend use of BMS (Building Management Systems) to remotely control the heating and hot water and to monitor gas, water and electric consumption.	Extend use of Ambiflex Controls and Intranet Communications (62 currently installed) to 230 top sites - average payback on existing sites 1yr 8mths.	£137,500	495
Updated Air Handling Units - Howe Bridge Sports Centre	Ongoing scheme to install latest low energy plant and equipment, providing better heating at lower running costs.	£100,000 (Quotations Received)	223
Investigate Bio Fuels - Trial Aspull Civic Hall	Replace existing oil fired boilers with Low Carbon units that use dried wood chippings as fuel, supplied from our Parks and Woodland.	£100,000	771

## 6.2 Implementation Plan Summary

The LACMP is a well defined process in 5 steps leading to the launch of the SIP. The following table indicates the programme's key milestones within each step as envisaged at the start of the project in April 2006.

It should be noted that we have made significant progress and are currently (Jan 2007), approaching the end of Step 4 (2 months ahead of schedule).

Milestone	Individual(s) responsible for delivery	Date
<b>Step 1</b>		
Project Plan submitted to Carbon Trust	Project Leader and Team	By 31 <sup>st</sup> July 2006
<b>Step 2</b>		
Vision and strategic objectives defined.	Project Leader, Project Sponsor and Team	By 16 <sup>th</sup> August 2006
Source data to LACM emissions tools	Project Leader, Energy Manager and Team	By 22 <sup>nd</sup> August 2006
Emissions forecast compiled and value at stake calculated	Project Leader, Head of Asset Management	Mid September 2006
Draft Case for Action document completed and circulated for feedback	Project Leader and Head of Asset Management	Mid September 2006
Final Case for Action document completed	Project Leader, Project Sponsor and Head of Asset Management	End of September 2006
<b>Step 3</b>		
Long list of opportunities	Project Leader, Project Team	End of October 2006
Opportunities Workshop	Project Leader, Project Team	End of October 2006
Options, prioritised and shortlist completed	Project Leader, Project Team	Mid November 2006



<b>Milestone</b>	<b>Individual(s) responsible for delivery</b>	<b>Date</b>
Costs and benefits of short listed options assessed	Project Leader, Project Team	End of November 2006
Options appraisal document completed	Project Leader, Project Team	End of November 2006
<b>Step 4</b>		
Carbon management strategy finalised and circulated for feedback	Project Leader, Head of Asset Management	Mid December 2006
Actions workshop	Project Leader, Project Team	End of January 2007
Implementation plan drafted and circulated for feedback	Project Leader, Head of Asset Management	Mid February 2007
SIP finalised and approved	CPG, Cabinet	March 2007
<b>Step 5</b>		
Carbon management strategy and implementation plan launched	Project Leader, Project Team, Communications Team	April 2007
Periodic reports produced	Project Leader	Every 6 months

## **7 Year 1 Implementation Plan**

### **7.1 Year 1 Milestones**

<b>Milestone</b>	<b>Individual(s) Responsible for Delivery</b>	<b>Date</b>
Carbon Management web links on new Wigan Website	A.Donnelly S.Flyn	12 February 2007
Hosting of the best practice event "An Introduction to Carbon Management – The Second Industrial Revolution"	D. Winstanley S.Flyn A.Donnelly	14 February 2007
Carbon Team Update Meeting	Carbon Team	15 February 2007
Approval of Strategy and Implementation Plan (SIP) by Cabinet	Members	22 February 2007
Formal "Sign Off" Session of SIP by Leader of the Council, Chief Executive, and Project Sponsors	D. Winstanley A.Donnelly	28 February 2007
Screening of the Al Gore film "An Inconvenient Truth"	S.Flyn A.Donnelly	05 March 2007
Carbon Team Update Meeting	Carbon Team	15 March 2007
Commencement of Year 1 Carbon Reduction Programme	Carbon Management Team	01 April 2007

<b>Milestone</b>	<b>Individual(s)</b>	<b>Date</b>
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3 <sup>rd</sup> Quarter Update Report to Corporate Delivery Team (CDT)	D. Winstanley	05 December 2007
Carbon Team Update Meeting	Carbon Team	17 December 2007

## 7.2 Year 1 Project Schedule

Technology	Description	Est. Cost	Est. Savings (tonnes CO <sub>2</sub> ) per annum
<b>powerPerfector</b>			
Civic Centre	7 sites fitted with electrical voltage optimisation equipment which lowers running costs and prolongs equipment life.	£20,536	20
Wigan Town Hall		£12,259	8
Leigh Bedford High		£9,283	6
New Magistrates Court		£16,705	10
Hindley Depot		£9,283	6
Civic Buildings		£12,259	7
Hesketh Fletcher High		£9,283	5
<b>Solar Hot Water</b>			
Trial - High School	Vacuum Tube Solar Heaters to generate hot water	£14,500	25
<b>Variable Speed Drives</b>			
Howe Bridge SC	Highly efficient pumps that match their speed to current conditions.	£9,626	32
Ashton Leisure Centre		£6,828	26
<b>Pool Covers</b>			
Howe Bridge SC	Extendable covers that fit over a pool and eliminate heat losses and evaporation.	£13,750	178
Ashton Leisure Centre		£13,750	178
<b>Low Energy Lights</b>			
Various Sites	Removal of inefficient lighting, replacement with T5 low energy units in "Top 20" sites surveyed by Trident	£34,068	73



Technology	Description	Est. Cost	Est. Savings (tonnes CO <sub>2</sub> ) per annum
Leigh Library	Extend use of Ambiflex Controls and Intranet Communications (62 currently installed) to 230 top sites, to remotely control the heating and hot water and to monitor gas, water and electric consumption.	£5,300	74
Shevington J&I		£5,300	69
Leigh CE Jun		£6,200	65
St.James' J&I		£6,100	54
The Orchards		£9,500	53
St.Maries J&I		£5,500	53
Aspull Church School		£5,286	53
St.Thomas' Golborne		£2,500	52
Castle Hill J&I		£4,400	43
Bryn Gates J&I		£4,300	42
History Shop		£4,300	39
Leigh Central J&I		£5,400	37
Cavendish Street Nurs.		£5,400	35

**Awareness Campaigns**

"Switch Off" signs and poster campaign		Staff time and administration	378
Nominated Energy Champions, CDT representatives at high level with nominated staff at lower levels	A team of volunteers, provided with training, responsible for energy savings within their buildings.		
Newsletter with ideas/tips	Bi-annual electronic newsletter		
Energy Performance in Buildings initiative - Certificates and Displays	Buildings are "Energy Rated" from A to G and the result is displayed in the entrance foyer. Soon to become a Government requirement.		

**Reduce heating control temperature**

Reduce heating control temperature	Standardise on legal maximum of 19°C on all buildings. 1°C reduction in temperature = 10% reduction in costs.	Staff time and administration	279
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**Totals**

**£251,616**

**1,900**



## **8 Implementation Plan Financing**

The financial benefits accruing to the Council from implementing the Carbon Management SIP are potentially significant. Energy costs are predicted to rise dramatically over the next few years. This has been effectively demonstrated by the recent cost increases experienced by the Council for gas and electricity of 76% and 80% respectively. This rise, coupled with industry predictions of forthcoming shortfalls in both gas and electricity supplies provides a dire outlook for current energy budgets. Increases in fossil fuel costs will also have a major effect on transport costs.

The investments identified in the Carbon Management SIP for the period 2007 – 2012 will be recouped on average in around 4 years from savings in reduced energy consumption. In effectively managing its carbon emissions, the Council will contribute to the improvement of the environment, mitigate some of the anticipated increases in energy costs and ensure that increases in Council Tax are kept to a minimum.

The majority of the measures identified for year 1 have a payback of less than 5 years. This will enable savings to be quickly re-invested into more schemes for accelerated reduction of carbon emissions. It also enables the Council to use prudential borrowing to fund many of the initiatives. Approximately £251,616 is required to finance all of the schemes, and this will be sought from a mixture of existing funding and prudential borrowing. The Carbon Management Programme has recently been allocated £250,000 for works, following the submission of robust financial cases. Projects identified for either the Leisure Trust or schools, will be repaid via the savings accrued, and a working group has been established to establish the mechanism for this.

Schemes with longer payback periods (8 years+), such as CHP units in swimming pools and wind generators on housing schemes, will also be promoted. These are expected to be financed via the prudential borrowing route, and as fuel prices increase payback periods on these projects will become shorter. A full list of all the schemes identified by the LACM process is available in Appendix 1.

Finally, alternative funding arrangements involving 3<sup>rd</sup> party investment has been proposed by the Carbon Trust and, if deemed appropriate, the Council will also consider this opportunity.



## 9 Stakeholder Management and Communications

In this section the strategy to communicate the Carbon Management SIP to the Stakeholders is set out. We have considered the range of Stakeholders for the Carbon Management Programme to include, but not be limited to, the following:

- The Council and Cabinet including: the Leader and Cabinet Members
- Chief Officers including: the Chief Executive, Directors
- Key Heads of Service including CYPS (Premises).
- Key officers and contractors/consultants including Leisure Trust, Wigan & Leigh Housing, Purchasing, Social Care, Facilities Management etc.
- All staff
- Schools; Head teachers, teachers, governors, facilities staff, pupils and parents, Voluntary Aided Sector representatives
- The Local Strategic Partnership and other partners
- Building Occupiers

Further members may be included as the programme develops.

### 9.1 Stakeholder management

At the outset of the LACM project a stakeholder mapping exercise was performed using the tool provided in the LACM Toolkit.

A graphical representation of the 'position' of the various stakeholders in respect of carbon management was produced (blocker, floater or champion), and a set of actions determined to engage with the various parties. Potential blockers and floaters have been invited to various workshops to involve them in the process and help them see the benefits. This is an ongoing process within the carbon management activity and a special Communications Sub Group has been set up to deal with it.

### 9.2 Communications Plan

The LACMP is fully supported by Members and senior officers.

The Councils Corporate Delivery Team (CDT) has the Carbon Management SIP as an agenda item and its progress will be reported on periodically. SIP progress will be more widely reported through the use of local Energy Champions and the carbon management website. In addition a series of events are planned aimed at raising the profile of carbon management, including a screening of the Al Gore film "An Inconvenient Truth" in February 2007, to complement the Wigan Borough Partnership Convention.

Stakeholder Name / Group	Issues	Key Messages	Means of Communication	Timetable	Responsibility
Council and Cabinet	Need to build awareness of cause and local effects; more likely to sell on potential cost savings	Capital Investment required but with strong business case; energy prices rising; council has "duty of care" to act; potential to publicly "lead the way".	Cabinet reports.  Cabinet Member sponsor.  Employee and Member bulletins and intranet "Energy Matters".	Stage 1 completed 1 <sup>st</sup> June 2006   End date 30 <sup>th</sup> March 2007	Project Leader and relevant Project Team Members



<b>Stakeholder Name / Group</b>	<b>Issues</b>	<b>Key Messages</b>	<b>Means of Communication</b>	<b>Timetable</b>	<b>Responsibility</b>
Chief Officers, including Chief Exec	Need to secure support for information and awareness to cascade	Becoming a strong corporate priority; energy prices rising; lots of small actions can make a big collective difference	CPG CDT reports SMT reports As above	30.08.06 As appropriate As appropriate	Project Leader and relevant Project Team Members
Key Heads of Service	Need to secure support for information and awareness to cascade. Need their specialist input to generate actions. Huge resource pressures to be factored in.	Becoming a corporate priority, energy prices rising; lots of small actions can make a big collective difference.	As above. As and when the opportunity arises		Project Leader and relevant Project Team Members
All staff	Need for buy in across the board. Need for info to be attractive, relevant both to work and home environment and to be accessible.	Overall success depends on staff involvement. Money saving opportunities to take home for use in the house.	Regular articles in (internal electronic newsletter) 'Energy Matters'. Staff induction Details of "quick wins" to be included 'Energy Management and Staff Bulletin'. Intranet resource	To be developed as soon as possible	Project Leader and relevant Project Team Members



<b>Stakeholder Name / Group</b>	<b>Issues</b>	<b>Key Messages</b>	<b>Means of Communication</b>	<b>Timetable</b>	<b>Responsibility</b>
Schools, (head teachers, teachers, governors, facilities staff, pupils and parents)	Pressure on finances, efficiency measures should be welcomed.	Importance of “whole school approach”, ie. Building fabric through to curricular content; opportunities for children/young people to take good messages home, improving household efficiency	Wigan Education Network  Awareness raising poster/payslip campaign  Good Housekeeping in Wigan Schools seminar for head teachers/ Caretakers		Project Leader and relevant Project Team Members
Local Strategic Partnership and other key partner organisation	Need to identify key partners to develop opportunities for joint working or sharing good practice; non-duplication of effort	Importance of working together to combat climate change; council leading the way but keen to work together.	LSP Forum Meetings	ASAP	Project Leader and relevant Project Team Members
Building Occupiers	Huge Scope to change behaviours; need to make information relevant and accessible.	Opportunities to help improve our environment and save money; small easy actions	Building User Group meetings  Energy Matters web-site  Employee Bulletins	Ongoing  In Development  6 months	Project Leader and relevant Project Team Members
Procurement Suppliers	Awareness of good practice in supply chain.	The Council will require suppliers to demonstrate Carbon Management Good Practice.	Selection process, contract documents and tender invitations/ terms and conditions of contract	To be determined	Project Leader and relevant Project Team Members. Procurement Officers.



## 10 SIP Governance, Ownership and Management

### 10.1 Main roles and responsibilities

Clear ownership of the Carbon Management SIP is essential to successful implementation. The table below shows the key people within the Council with responsibilities for overall management of the SIP

Sponsor (Member)	David Molyneux	Cabinet Member for the Environment
Sponsor (Senior Management)	Martin Kimber	Director Designate for Environmental Services
Project Leader	Ian Capper	Corporate Property Officer
Core Team Members	David Winstanley	Strategic Asset Manager
	Howard McMutrie	Operational Asset Manager
	Steve Flynn	Energy Manager
LACM Team Members	Gary Harold	Chief Assistant Planning Officer
	James Noakes	Travel Plan Co-ordinator
	Helen Smith	Facilities Manager
	Eric Meadwell	W&LH – Project Manager
	Andrew Taylor	Assistant Director of Finance & IT
	Keith Benson	Street Scene & Lighting Manager
	Stuart Holden	WL&CT Project & Facilities Development Manager
	Lee Connor	WL&CT – Facilities Officer
	Dave Young	Environmental Protection Services Manager
	Paul Cartmell	Senior EHO
Andrew Donnelly	Principal Public Relations Officer	
Jeff Cunliffe	CYPS Development Manager	
Janet Withington	Sustainability Co-ordinator	

**Carbon Management Implementation Plan: Responsibility Table.**

Activity	Responsible person			
	Member Representative	Core Team Members	LACM Team	Others
Carbon Management Implementation Plan	David Molyneux	Ian Capper	All Members	CDT
- Set objectives		David Winstanley		Cabinet
- Manage implementation plan		Stephen Flynn		
- Monitor and review progress				
- Manage risks and issues				
- Manage stakeholders and				



communication - Report				
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Activity	Responsible person(s)			
	Member Representative	Core Team Members	LACM Team	Others
Financing of Carbon Management Activities		David Winstanley Stephen Flyn	Andrew Taylor	CDT DFIT
Carbon Management in Buildings		Stephen Flyn	Helen Smith Eric Meadwell Stuart Holden Jeff Cunliffe	CDT
Carbon Management in Transport		David Winstanley	James Noakes Janet Withington	CDT Cabinet
CHP, Renewable Energy		Stephen Flyn	Helen Smith Stuart Holden Eric Meadwell Jeff Cunliffe	CDT
Street Lighting		Howard McMutrie	Keith Benson	CDT
Communications and community relations		David Winstanley Stephen Flyn	Andrew Donnelly Helen Smith Janet Withington James Noakes	CDT Cabinet

## 10.2 Risks and issues management

At individual project level risks and issues arising will be managed by the individual project managers and if required members of the LACM team associated with the works *e.g. Carbon Management in Buildings*. Projects will be reported on to the Carbon Management Team and to Corporate Development Team as required.

Other more general risks are associated with the Support Services Review covering Legal and Property Services amongst others. The danger here is that links between the project team members become fractured, with people potentially changing roles within the Council. The outcome of the review could also lead to the strengthening of the team.



Current issues that may impact upon the Carbon Management SIP include the departure of the Project Leader (January 2007) and the situation with devolved capital budgets for schools, which often leads to poor investments in energy management.

### **10.3 Benefits management**

Where possible, quantifiable benefits accruing from individual actions will be measured from energy consumption data. In cases where this is difficult a “before and after” monitoring of energy consumption with a data logger will be undertaken. Actions have been identified within the Carbon Management SIP to improve data collection and availability. A revised CO<sub>2</sub> emissions value will be calculated and published each year from meter readings and, where these are lacking, billing information. This will enable progress against the targets in the SIP to be reported.

Benefits will also be reviewed periodically by the Carbon Management Team and disseminated to the various stakeholders.

### **10.4 Reporting and evaluation**

Targets will be reviewed annually in consultation with Corporate Delivery Team and the Carbon Management Team. Further actions identified throughout the period of the Carbon Management SIP will be considered for inclusion at this annual review. It seems appropriate to conduct this review at the end of the financial year. As noted in section 10.3 above, the review will include an updated calculation of CO<sub>2</sub> emissions and the Council’s progress against its CO<sub>2</sub> reduction targets. It is the responsibility of the Energy Manager to measure and report the progress against targets, and this will be included in the Council’s Performance Management arrangements.

The Carbon Management SIP’s achievements will be communicated to the Stakeholders as detailed in Section 9 *Stakeholder Management and Communications*, by means of local energy champions (the GLO Team), the carbon management website and displays.



## Appendix A: Full list of Carbon Management Initiatives

Date Added or Ref. No.	Type of Project	Other relevant descriptor	Technology	Current Status of Project	Status of Project after Improving Actions	Dept. Responsible /Senior Officer	Lead Officer	Position on Effectiveness Matrix
1	BU	All Buildings	Smart Metering	G	G	I Capper	S.Flyn	1
2	BU	All Buildings	PowerPerfector System - Market Hall	G	G	I Capper	S.Flyn	1
3	BU	All Buildings	"Switch Off" signs and poster campaign	G	g	I Capper	H Smith	1
4	BU	All Buildings	Nominated Energy Champions, CDT at high level with nominated staff at lower levels	G	g	Tba	CDT	1
5	BU	All Buildings	Reduce heating control temperature	G	g	I Capper	S.Flyn	1
6	RE	Corporate	Investigate Bio Fuels - Central collection for wood chippings	G	g	P Parry	S Holden	1
7	BU	All Buildings	Install energy saving equipment all schemes	G	g	I Capper	S.Flyn	1
8	BU	Leisure	Pool Covers	G	g	P Parry	S Holden	1
9	OT	All Buildings	Set default settings on printers to double sided and draft	G	g	DFIT	A Taylor	1
10	OT	All Buildings	Timed shutdown of computers	G	g	DFIT	A Taylor	1
11	BU	All Buildings	Replace bottled water with chilled mains	G	g	I Capper	H Smith	1
12	OT	Staff	Newsletter with ideas/tips	G	g	A Hardy	A Donnelly	1
13	BU	All Buildings	Use life cycle costs to justify use of more expensive energy saving standards	G	g	DFIT	A Taylor	1
14	BU	All Buildings	Insulate to high standard	G	g	I Capper	S.Flyn	1
15	BU	Schools	Benchmark schools	G	g	I Capper	S.Flyn	1
16	BU	All Buildings	Pool Bikes in main Admin buildings	G	g	I Capper	S.Flyn	1

**Key:**  
 BU = Buildings  
 SL = Street lighting  
 TF = Transport Fleet  
 TB = Transport Business Travel  
 RE = Renewables & CHP  
 OT = Other  
 G = Green  
 A = Amber  
 R = Red



OT = Other

Date Added or Ref. No.	Type of Project	Other relevant descriptor	Technology	Current Status of Project	Status of Project after Improving Actions	Dept. Responsible /Senior Officer	Lead Officer	Position on Effectiveness Matrix
17	BU	Leisure / Schools	UV water treatment in pools	G	g	P Parry	S Holden	2
18	OT	All Buildings	Recycled paper for printers	G	g	DFIT	A Taylor	2
19	OT	All Buildings	Centralised Multi output printers etc	G	g	DFIT	A Taylor	2
21	RE	All Buildings	Ground source heat pumps	G	g	I Capper	S.Flyn	2
22	RE	All Buildings	Wind turbines on Flagship Buildings	G	g	I Capper	S.Flyn	2
23	OT	Corporate	Carbon offsetting for conferences - show carbon use for meetings	G	g	Tba	CDT	3
24	OT	Staff	Policy included into induction	G	g	A Hardy	L Jackson	3
25	RE	All Buildings	Solar films on south windows	G	g	I Capper	S.Flyn	3
26	RE	All Buildings	Solar photovoltaics	R	g	I Capper	S.Flyn	7
28	TF	Corporate	Investigate use of other fuels	G	g	M Kimber	M Tilley	1
31	TB	Staff	Survey staff (done!)	G	g	M Kimber	J Noakes	1
32	TB	Staff	Centralised procurement of taxi services	G	g	DAS	I Lythgoe	3
33	TF/TB	Corporate	Lowest carbon vehicles used in most densely populated areas	G	g	M Kimber	M Tilley	3
34	TF/TB	Staff	Measure fuel consumption in km/l for vehicles and people	G	g	M Kimber	M Tilley	3
35	TF	Corporate	Oil analysis tool rolled out further than just Adult Services (all staff?) Better maintenance of vehicles	G	g	M Kimber	M Tilley	3
37	OT	Staff	Video/teleconferencing	G	g	DFIT	A Taylor	3
38	TF/TB	Staff	Driver training (esp Fleet) for "eco-driving"	G	g	M Kimber	M Tilley	2
39	OT	Staff	Energy Behaviour Audits	G	g			2
40	OT	Staff	Home working/satellite working	G	g	A Hardy	L Jackson	2

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TB = Transport Business Travel  
 OT = Other

Date Added or Ref. No.	Type of Project	Other relevant descriptor	Technology	Current Status of Project	Status of Project after Improving Actions	Dept. Responsible /Senior Officer	Lead Officer	Position on Effectiveness Matrix
41	TB	Staff	Car sharing to meetings	G	g	tba	CDT	2
42	TB	Staff	Pool cars	A	g	M Kimber	M Tilley	5
43	TB	Staff	Increase mileage payments to cyclists (to more than that of cars)	A	g	DFIT	A Taylor	5
44	TB	Staff	Incentives for car sharing	R	g	DFIT	A Taylor	8
45	TB	Staff	Cycle to work scheme (eg Boost)	A	g	M Kimber	J Noakes	5
46	TF/TB	Staff	Measure driver efficiency (eg some form of black box recording)	A	g	M Kimber	M Tilley	4
47	TB	Corporate	Car Mileage Policy changes	A	g	DFIT	A Taylor	4
48	OT	Corporate	Car Parking Policy (bring in charges)	G	g	I Capper	S Flyn	1
49	OT	Corporate	Reduce car parking provision	A	g	M Kimber	G Harold	4
50	TB	Corporate	Give managers a finite budget for car mileage	R	g	DFIT	A Taylor	7
52	BU	Schools	Financial incentives to schools to save	A	g	DFIT	A Taylor	
53	RE	Schools	CHP for secondary schools	A	g	I Capper	S.Flyn	4
54	BU	Schools	Pass on actual costs to community users	A	g	DCYP	J Cunliffe	5
55	RE	Corporate	High profile initiatives that raise awareness but may not be cost effective	R	g	I Capper	S.Flyn	8
56	RE	All Buildings	Green Roofs	R	g	M Kimber	J Withington	9
57	OT	Schools	Walking Buses	R	g	DCYP	J Cunliffe	7
58	OT		Energy grant database	A	g	M Kimber	J Withington	5
60	OT	All Buildings	Waste recycling from offices	G	g	I Capper	H Smith	1
61	OT	All Buildings	Re-use of furniture - Establishment of Database	R	g	I Capper	H Smith	7
62	RE	All Buildings	Solar water heaters	G	g	I Capper	S.Flyn	2

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Date Added or Ref. No.	Type of Project	Other relevant descriptor	Technology	Current Status of Project	Status of Project after Improving Actions	Dept. Responsible /Senior Officer	Lead Officer	Position on Effectiveness Matrix
63	BU	All Buildings	Planning policy on materials composition	A	g	M Kimber	N Clarke	5
64	BU	All Buildings	Centralised control of air conditioning	A	g	P Marsh	S.Flyn	5
65	OT	Corporate	Sustainable Procurement strategy	A	g	A Hardy	J Cliff	4
66	OT	Corporate	Environmental management system (ISO 14001/EMAS) for key council services	A	g	M Kimber	J Withington	5
67	OT	All Buildings	Efficient Building space utilisation	A	g	P Marsh	H Smith	4
68	OT	All Buildings	Electronic 'Paperless' Offices	A	g	DFIT	A Taylor	4
69	OT	All Buildings	Building user guide for energy/carbon efficiency	G	g	I Capper	S.Flyn	2
72	OT	Corporate	Integrate Carbon Management into the Corporate Plan and Departmental Service Plans	G	g	tba	CDT	3
73	OT	Corporate	Climate Change Assessments on all Council Plans and Programmes	G	g	M Kimber	J Withington	3
75	OT	Corporate	Climate Change implications on all reports	G	g	M Kimber	J Withington	3
76	OT	Corporate	Carbon Management screen saver	G	g	DFIT	A Taylor	3
77	TB	Corporate	Facilitate use of public transport to council meetings	R	g	tba	CDT	7
78	TB	Corporate	Make public transport the official preferred mode for business travel	G	g	tba	CDT	3
79	TB	Corporate	Disincentives for high car mileage/high polluting vehicles	R	g	DFIT	A Taylor	7
80	OT	Corporate	Raise awareness of Health and carbon reduction benefits from walking to and at work	A	g	M Kimber	J Noakes	6

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R = Red

Date Added or Ref. No.	Type of Project	Other relevant descriptor	Technology	Current Status of Project	Status of Project after Improving Actions	Dept. Responsible /Senior Officer	Lead Officer	Position on Effectiveness Matrix
81	OT	Corporate	Share carbon management through Local Strategic Partnership	G	g	M Kimber	J Withington	3
82	BU	Housing	Set targets for improving energy efficiency in all Housing Stock	G	g	P Leyland	P Cartmell	2
83	OT	Housing	Share carbon management through public sector landlords	G	g	P Leyland	P Cartmell	3
84	BU	Housing	District heating systems	A	g	P Leyland	P Cartmell	4
85	OT	Housing	Affordable Warmth and Fuel Poverty Policies related to Carbon Management	G	g	P Leyland	P Cartmell	2
86	OT	Schools	Include Carbon Management in School Management Procedures	G	g	DCYP	J Cunliffe	2
87	OT	Schools	Promote Eco schools programme and good practice network	G	g	DCYP	J Cunliffe	2
88	TB	Schools	Effective Route Planning for schools	G	g	DCYP	J Cunliffe	3
90	RE/SL	Corporate	Renewable energy for street furniture	G	g	M Kimber	K Benson	2
91	OT	Corporate	Recycled materials for street furniture	A	g	M Kimber	K Benson	5
92	OT	Corporate	Air Quality and HECA related to Carbon Management	A	g	DCP	D Young	4
93	OT	Corporate	Increase tree cover for Carbon off setting	G	g	M Kimber	G Harold	3
94	RE	Corporate	Incorporate Merton Rule into planning procedure (10% renewables for new schemes)	G	g	M Kimber	G Harold	3
95	RE	Corporate	Waste to energy schemes	A	g	M Kimber	J Noakes	4
96	RE	All Buildings	Passive ventilation to replace air con.	G	g	I Capper	S.Flyn	2

**Key:**  
 BU = Buildings                      RE = Renewables & CHP                      G = Green



*SL = Street lighting*  
*TF = Transport Fleet*  
*TB = Transport Business Travel*  
*OT = Other*

*OT – Other*

*A = Amber*  
*R = Red*



Date Added or Ref. No.	Type of Project	Other relevant descriptor	Technology	Current Status of Project	Status of Project after Improving Actions	Dept. Responsible /Senior Officer	Lead Officer	Position on Effectiveness Matrix
97	RE	All Buildings	Solar Tubes to augment artificial lighting	G	g	Ian Capper	S.Flyn	2
98	BU	All Buildings	Extend use of BMS (Building Management Systems)	G	g	Ian Capper	S.Flyn	1
99	BU	All Buildings	Energy Performance in Buildings initiative - Certificates and Displays	G	g	Ian Capper	S.Flyn	1
100	OT	Corporate	Recycle used IT equipment	G	g	DFIT	A Taylor	2

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*TF = Transport Fleet*                      *R = Red*  
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*OT = Other*