



# London Borough Tower Hamlets Carbon Management Programme

## Carbon Management Plan (CMP)

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***Date: 23<sup>rd</sup> March 2009***

***Owner: Rachel Carless***

***Status: Draft***

***Approval route:***

- LACM Board - 4th Feb
- Submission draft report - 17th Feb
- Final report - 23rd March
- Cabinet - 8th April.

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## Foreword from the Chief Executive and Lead Member for Resources

Climate change is one of the most pressing issues facing the planet today. In 2007 the Council demonstrated its commitment to tackling climate change by signing the Nottingham Declaration<sup>1</sup>. This Carbon Management plan is further evidence that as an organisation we are serious about our responsibilities and it represents an important building block in what will become an overarching Climate Change Strategy for the Borough.

Carbon management is important to the Council as it not only helps to combat climate change but reduces the Council's costs allowing it to operate in an efficient way, thereby embracing the principles of value for money for the Borough's residents. This Carbon Management Plan reinforces the priorities outlined in the Community Plan to protect the environment, tackle climate change and secure sustainable development for the future.

The Council has two roles to play in this - firstly by addressing its own impacts as a major organisation and consumer of resources and secondly as a community leader by raising awareness and encouraging and co-ordinating action across communities and organisations.

As a community leader the Council should lead by example, setting the standard for other local organisations to follow. It is essential that the Council's efforts to manage its carbon emissions are seen as part of effective resource and asset management for the Council, and as such are considered by all of those who have an impact on it.

**Xxxxxxx**

**XXXXXXXXXXXX**

**Signed by Martin Smith and Cllr Joshua Peck**

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<sup>1</sup> The Nottingham Declaration recognises the central role of local authorities in leading society's response to the challenge of climate change. More info at <http://www.energysavingtrust.org.uk/nottingham/Nottingham-Declaration/Why-Sign/About-the-Nottingham-Declaration>

## Foreword from the Carbon Trust

Cutting carbon emissions as part of the fight against climate change should be a key priority for local authorities - it's all about getting your own house in order and leading by example. The UK government has identified the local authority sector as key to delivering Carbon Reduction across the UK in line with its Kyoto commitments and the Local Authority Carbon Management programme is designed in response to this. It assists councils 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.

Tower Hamlets Council was selected in 2008, amidst strong competition, to take part in this ambitious programme. Tower Hamlets Council partnered with the Carbon Trust on this programme in order to realise vast carbon and cost savings. This Carbon Management Plan commits the council to a target of reducing CO<sub>2</sub> by 30% by 2012 and underpins potential cumulative financial savings to the council of around £4.7 million to 2012.

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 Tower Hamlets Council in their ongoing implementation of carbon management.



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

## Management Summary

Tackling climate change is now a core policy driver at both local and national government level. From 2009 all councils will be assessed by government, through the Comprehensive Area Assessment, on their ability to work together with local public and private partners to reduce their energy consumption both within and beyond organisational boundaries while also adapting services to the expected changes climate change will bring.

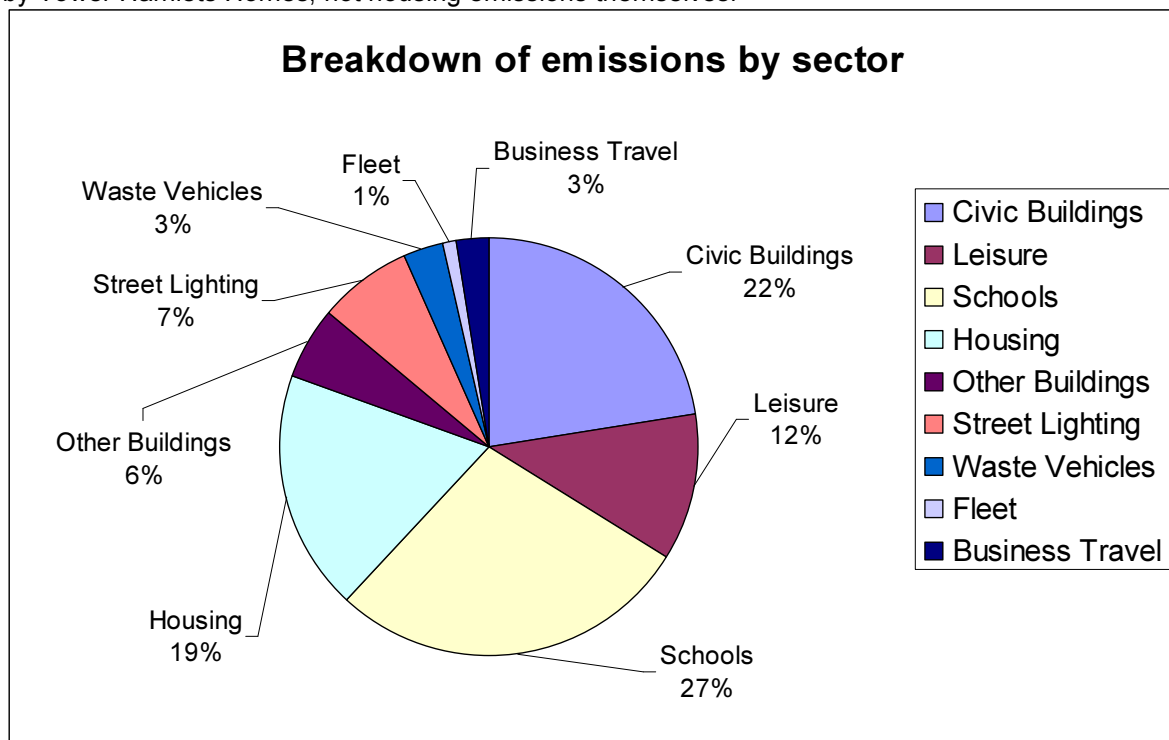
This Carbon Management Plan sets out the ambition around becoming a low carbon Council and details its first steps, over an initial three year programme of investment. The council's carbon baseline in year ending April 2008 was 42,853 tCO<sub>2</sub> (tonnes CO<sub>2</sub>) with associated energy costs of £3.4 million.

The total (non cashable) savings that will be gained through fulfilling the 25% reduction target by 2012 (the Cumulative Value At Stake) is around £4 million. The cost to achieve the 25% reduction is still being determined. So far nineteen Carbon Reduction projects have been identified that represent 13.8% of the reduction target. Fourteen of these projects are already quantified, the cost for implementation is around £3.7 million.

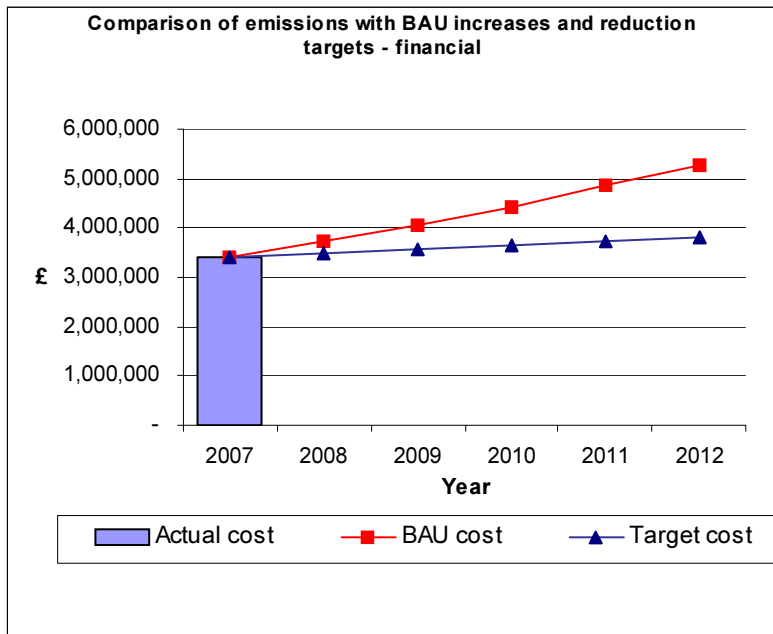
**The London Borough of Tower Hamlets will reduce CO<sub>2</sub> emissions from Council Operations by 60% by 2020 (from 2007 levels)**

**Figure 1 – Breakdown of emissions by sector**

Note: Housing in this pie chart refers to the authority's Landlord supplies for the housing stock managed by Tower Hamlets Homes, not housing emissions themselves.



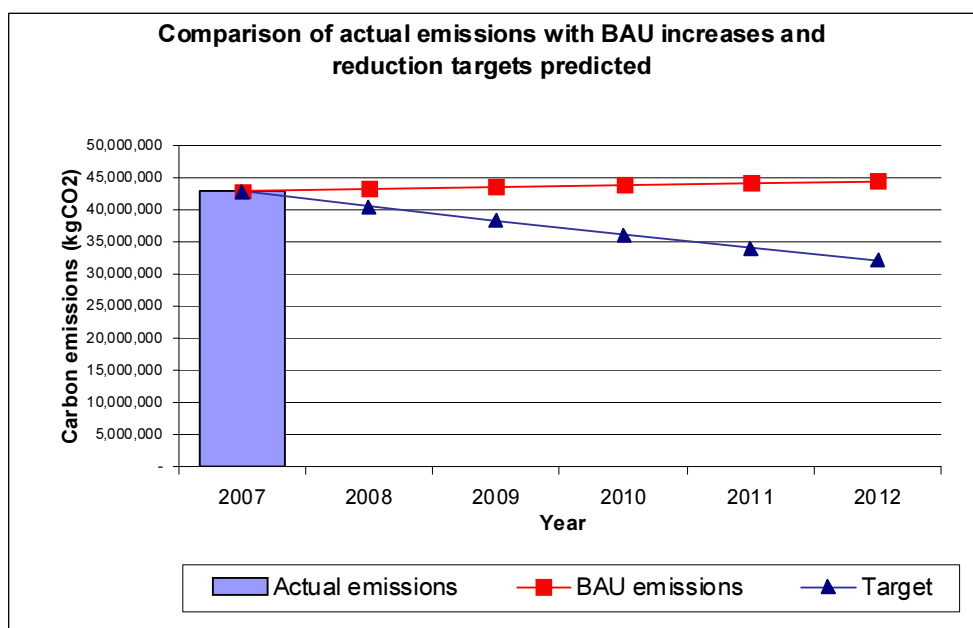
**Figure 2 – Financial Value At Stake**



**BAU = Business As Usual.** BAU is the scenario if no action is taken to reduce carbon emissions. The BAU in this case is that the council’s energy costs will rise by around £1.9 million (from £3.4 million to £5.3 million) per annum by 2012. This takes into account future utility prices and increased consumption.

The Cumulative Financial Value At Stake (VAS) is the difference between the business as usual (BAU) scenario and the reduced emissions scenario and is represented by the triangular space between the red and blue lines on the graph. The Cumulative VAS (non cashable savings) is around £4 million if the council hits the 25% reduction target by 2012. (This does not take into account the cost of implementing the projects).

**Figure 3 – Carbon Value At Stake**



### Figure 3 – Carbon Value At Stake (above)

Figure 3 demonstrates the Business As Usual (BAU) scenario whereby if no action is taken the Council's carbon footprint will increase by 1,521 tCO<sub>2</sub> to 44,374 tCO<sub>2</sub> per annum by 2012.

Figure 4

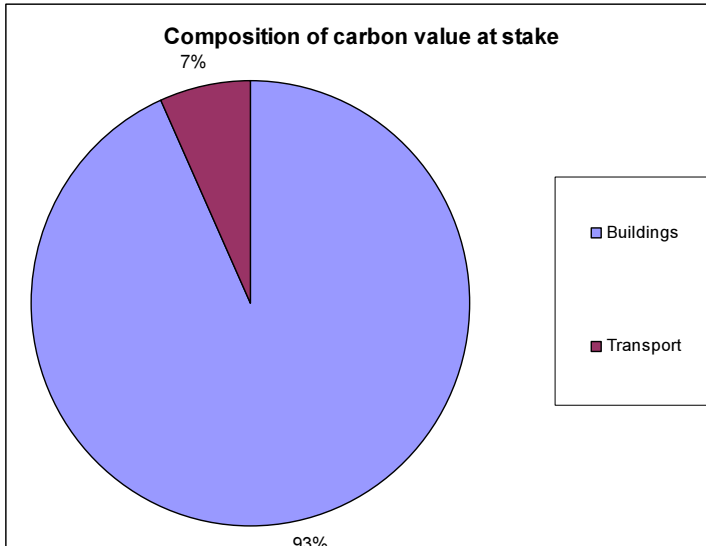
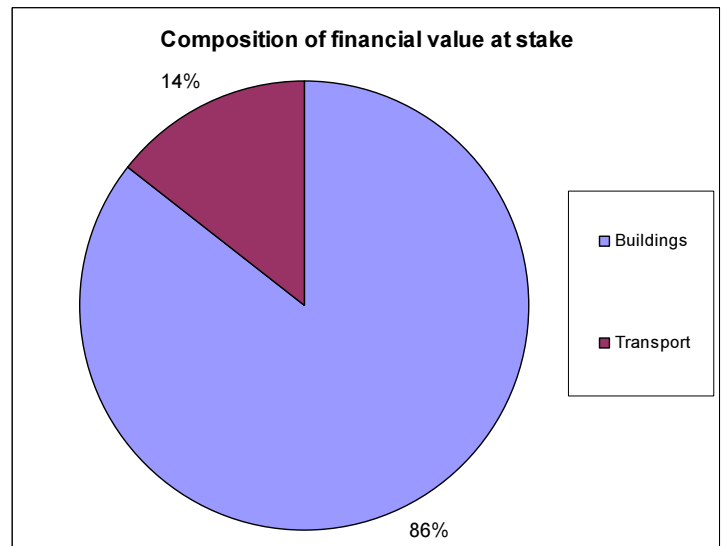


Figure 5



### Figure 4 - Composition of Carbon Value At Stake

Figure 4 shows where the biggest carbon savings can be made. It shows that 93% of the Value At Stake lies in stationary sources or the Council's buildings. This demonstrates the importance of ensuring that the Council's buildings are the focus of the council's Carbon Management Programme.

### Figure 5 - Composition of Financial Value At Stake

This pie chart shows that 86% of the non-cashable savings are to be found in Carbon Reduction projects associated with the council's buildings.

So far nineteen projects have been identified within the Carbon Management Programme, which together will save an estimated 5914 tonnes CO<sub>2</sub>. This represents 13.8% of the reduction target. As the Programme progresses more carbon saving projects will need to be identified.

A key challenge will be to maintain the Programme's impetus, momentum and sufficient investment over time. In order to ensure success a dedicated ring fenced fund will need to be established in order to finance projects over the course of the Programme. In addition the authority shall need to ensure there is full 'buy in' from Tower Hamlets Homes and schools.

Salix Finance, a subsidiary company of the Carbon Trust, set up to fund public sector energy efficiency projects, will be utilised to provide 50% match funding for the

Programme's capital projects, where the projects offer cashable savings, the funding shall be utilised to fund 100% of school schemes where possible.

The Council will achieve the aims set out in this Carbon Management Plan through activity in 5 key areas;

1. Implementing Carbon Reduction projects
2. Making Carbon Reduction everyone's responsibility
3. Targeting budgets to Carbon Reduction projects and seeking new external funds
4. Creating strong leadership and ownership of Carbon Management within the Council
5. More effective partnership working

(These are explored in further detail in Section 2.3 of this Plan).

## **Policy Framework**

### **Community Plan 2020**

Tower Hamlets new Community Plan, 2020 Vision, recognises both the challenge, and importance of reducing CO<sub>2</sub> emissions and ensuring sustainable development across the Borough. A key target of the Community Plan is that; by March 2011 we will reduce the level of CO<sub>2</sub> emissions in the borough by 10%.

Carbon Reduction is a recurring tenant throughout the Community Plan; it is reflected throughout all of the themes; a Great Place to Live, A Prosperous Community, A Safe and Supporting Community and a Healthy Community. This acknowledges that Carbon Reduction must be embedded in all Partnership activities if we are to lead in tackling climate change.

This Carbon Management Plan sits within the Community Plan theme of a Great Place to Live, where one of the four priorities is;

### **Improving the environment and tackling climate change by: Reducing energy use and using more renewable energy sources**



## **Local Development Framework (LDF)**

The LDF has been developed and produced in line with our Community Plan 2020, it sets out the spatial strategy for the Borough for the next 15 years, giving geographic expression to the economic, social, cultural and ecological policies of society. Tackling Climate Change is a key theme in the Core Strategy document (currently out to consultation). The following key aims are set out under this theme;

- Work towards zero carbon built form
- Encourage renewable energy within the Borough and linked into a wider network for East London
- Ensure that all new homes reach zero carbon by 2016 and that all non-domestic properties reach zero-carbon by 2019
- Achieve a zero carbon borough in the current century, with a 60% reduction by 2025

## **Other Plans**

### **Local Area Agreement**

The partnerships commitment to Carbon Reduction is also expressed in the council's Local Area Agreement (LAA). The outcomes in the LAA have been developed in line with the Community Plan, and identified and agreed through the Tower Hamlets Partnership, involving all key local partners and stakeholders. Through the "Golden Thread" approach, our commitment to Carbon Reduction is reflected through the annual Strategic Plan (Community Plan Implementation Plan) and the business planning process.

### **Procurement Sustainability Policy**

As part of the council's procurement policy, sustainability, environmental and social factors must be considered in all purchase, tender, contract and contract management activity. The policy involves consideration of the following;

- What the product is made from
- Whether the product can be reused/re-cycled at the end of its life
- The processes involved in its production and distribution
- Possibility of purchasing and consuming less

## 1. Introduction

The purpose of this Carbon Management Plan is to establish a comprehensive process for managing carbon emissions by the Council. The primary focus of the work is to reduce emissions under the control of the local authority such as buildings, transportation (fleet and staff travel) and street lighting. The Programme will also result in increased operational efficiency and cost savings. The Plan outlines the Council's vision and Carbon Reduction targets up to 2020.

The Carbon Trust Local Authority Carbon Management (LACM) Programme is a ten month, 5 step process that began at a launch event hosted by the Carbon Trust in May 2008. The Programme was launched internally on June 18<sup>th</sup> 2008. Since then the Council has been working through the 5 steps;

- Mobilise the organisation
- Set baseline, forecast and targets
- Identify and quantify options
- Finalise Carbon Management Plan
- Implement Carbon Management Plan

This Plan will come into effect in April 2009, following successful adoption by Cabinet and covers the first three years of the Implementation Phase of the Carbon Management Programme (to March 2012).

This Plan builds on previous work undertaken by the Council to address its environmental impacts. The Council's Environmental Strategy and Action Plan (2007-2010) were adopted by Cabinet in June 2007 setting out the vision for improving the environmental performance of the council in five key areas of significant and direct environmental impact; Transport, Energy management, Water management, Waste management and Procurement.

Leading on from this Carbon Management Plan, work will be undertaken to produce an overarching Climate Change Strategy that will address the causes and impacts of climate change, according to our local priorities, securing maximum benefit for our communities. This is also a requirement for the Council as a signatory of the Nottingham Declaration on Climate Change.<sup>1</sup>

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<sup>1</sup> The Nottingham Declaration recognises the central role of local authorities in leading society's response to the challenge of climate change. More information can be found at <http://www.energysavingtrust.org.uk/nottingham/Nottingham-Declaration/Why-Sign/About-the-Nottingham-Declaration>

## 2. Carbon Management Strategy

This section sets the Carbon Management Plan in the wider context – international through to local drivers. It will outline what the Authority is aiming for and the key areas of activity that will be undertaken to get there.

### 2.1 Context and Drivers for Carbon Management

Climate change is already damaging the world's ecosystems. Left unchecked, it is set to cause a global humanitarian and environmental disaster affecting species, habitats and people everywhere. If we are to avoid the worst effects of climate change (and to avoid dangerous tipping points) we have to stay below a 2°C increase in average global temperatures, compared to what they were before the industrial era.

#### **Nottingham Declaration:**

The council signed the Nottingham Declaration on Climate Change in 2007:

**The London Borough of Tower Hamlets acknowledges the increasing impact that climate change will have on our community during the 21st century and commits to tackling the causes and effects of a changing climate on our borough**

The UK Government has placed an emphasis on local authorities setting a leading example on Climate Change. Action by local authorities will be critical to the achievement of the Government's climate change objectives such as the long-term goal to reduce CO<sub>2</sub> emissions by (the recently raised target of) 80% by 2050 (on 1990 levels) in the Climate Change Bill. This has created a number of legislative drivers for Local Authorities:

- **Carbon Reduction Commitment (CRC):**

The Carbon Reduction Commitment<sup>2</sup> is a mandatory “cap & trade” emissions trading scheme for organisations (in public and private sectors) whose total electricity consumption is greater than 6,000MWh or approximately £500k. If an organisation falls within the CRC scheme all electricity and fuel emissions are covered. From 2010 poorly performing Local Authorities will be penalised depending on their position in a CRC league table when compared with other members of the scheme. An analysis has been undertaken on what the financial implications of the scheme might be, taking into account the “cap and trade” element and the potential penalties which may be incurred. This is summarised in the table below.

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<sup>2</sup> More info on the CRC can be found at: <http://www.defra.gov.uk/Environment/climatechange/uk/business/crc/index.htm>

**Table 1 - Summary for the First Three Years of the CRC Scheme:**

Year of Scheme	Best Case Scenario £'000	Worst Case Scenario £'000
Registration	-	105
Year 1 (2010/2011)	(38)	405
Year 2 (2011/2012)	(269)	700
Year 3 (2012/2013)	(403)	834

Defra have also created two National Indicators specific to CO<sub>2</sub> reduction:

• **NI185 – Percentage CO<sub>2</sub> reduction from LA operations**

The public sector is in a key position to lead on efforts to reduce CO<sub>2</sub> emissions by setting a behavioural and strategic example to the private sector and the communities they serve. Measurement against this indicator requires each local authority to calculate its CO<sub>2</sub> emissions from analysis of the energy and fuel use in their relevant buildings and transport, including where these services have been outsourced.<sup>3</sup>

Tower Hamlets is using the work in this Programme to effect the reductions required by this National Indicator, and will report to Defra annually on performance.

• **NI186 – Per capita CO<sub>2</sub> reduction of emissions in the LA area:**

Government estimates that in 2006 some 2,348,000 tonnes of CO<sub>2</sub> were emitted in Tower Hamlets - just over 11 tonnes per head - the second highest emitting Borough in London. Most of this comes from the commercial and industrial sector (65%), with 18% from housing and 17% from transport.

The Council has included NI 186 as a committed target within its LAA - one of the 35 National Indicators selected from the National set. The Council has committed to the following CO<sub>2</sub> reduction targets in per capita carbon emissions. The percentage reduction in CO<sub>2</sub> per capita in each LA will be reported to DCLG annually:

- 3% by the end of 2008
- 6% by 2009
- 10% by 2010

<sup>3</sup> More information on NI185 and NI186 can be found at: [www.defra.gov.uk/environment/localgovindicators/indicators.htm](http://www.defra.gov.uk/environment/localgovindicators/indicators.htm)

- **Cost**

Measures to increase energy efficiency will reduce energy costs, which is particularly important for the future given the predicted increases in energy prices. Energy and fuel costs have seen a dramatic rise in recent years, with energy prices increasing by well over 50% since 2004 and by as much as 80% in the last year alone (June 2007 to June 2008). The energy market is currently very volatile but we must accept that the price we pay for our energy is likely to increase in the coming years. Saving money on energy allows the Council to divert valuable funds elsewhere and to therefore tackle better the considerable challenges of inequality, poverty, health and education that exist in the Borough.

- **Reputation**

Climate change is a critical global issue which requires leadership. Taking action to combat climate change will increase public confidence and have an immensely positive impact on the organisation's reputation. There is also growing evidence that organisations that are active in addressing environmental impacts boast enhanced employee morale leading to higher productivity.

- **Reduce Use of Natural Resources**

The Council recognises its responsibility to manage its consumption of the world's natural resources and to work towards the principles of One Planet Living<sup>4</sup> - that is to say to operate sustainably using the resources available. This Plan is an important part of the Council's commitment to reduce its own use of natural resources and its impact on the environment.

### Other Drivers:

- **Display Energy Certificates**

From the 6th April 2008 it became a legal requirement for all public buildings with a usable floor area of over 1000 sq metres, to display the Display Energy Certificate (DEC) in a public place (normally the entrance).<sup>5</sup> This certificate provides an asset rating and an operational rating and is only valid for 12 months for public buildings and authorities; it is a requirement to be updated annually. A programme of implementation is now in place to ensure compliance.

- **Performance against other National Indicators**

Achieving the Aims of the CMP and progress towards the reduction targets also benefits the Council's performance in several National Indicators. The per capita reduction of energy use within the Borough, NI 186, has already been mentioned. As a consequence of the Council using less gas the levels of atmospheric nitrogen oxides

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<sup>4</sup> More information can be found at [www.oneplanetliving.org](http://www.oneplanetliving.org)

<sup>5</sup> More information on DEC can be found at [www.communities.gov.uk/planningandbuilding/theenvironment/energyperformance/certificates/displayenergycertificates](http://www.communities.gov.uk/planningandbuilding/theenvironment/energyperformance/certificates/displayenergycertificates)

and PM10s (particulate matter, a recognised air pollutant) reduce, directly assisting Air Quality, measured by NI 194, whilst improving the efficiency of communal heating helps residents avoid fuel poverty, measured by NI 187.

#### • CPA & CAA Assessment

The report from the Corporate Assessment element of the Comprehensive Performance Assessment (CPA) was published in July 2008. Overall this stated that the Council was performing strongly and enabled us to achieve a 4 star rating – the highest possible. One of the two recommendations for improvement was that the “the Council should ensure that it gives greater priority to environmental sustainability.”

From the 1<sup>st</sup> April 2009 the Comprehensive Area Assessment (CAA) is to replace the CPA. The Audit Commission have made it clear that sustainability will form a core part of the CAA. For example the Key Lines of Enquiry for the Use of Resources element of the CAA requires the Council to “Make effective use of natural resources”. Specifically within this we will be assessed against our ability to:

1. Understand and quantify our use of natural resources and identify the main influencing factors
2. Manage performance to reduce our impact on the environment
3. Manage the environmental risks we face, working with partners

## 2.2 Our Low Carbon Vision

**London Borough Tower Hamlets –  
Reducing Carbon, Reducing Costs**

In order to achieve this, the council commits to the following;

- Reducing its carbon emissions year on year
- Reaching Level 5 in each area of the Carbon Management Embedding Matrix by April 2011 [See Appendix A of this Plan]

## 2.3 Key Areas of Activity

The Council has made a good start on embedding carbon management within the Council through changing existing policies and procedures, but there is still much to do to ensure carbon management receives due regard in all areas of the Council’s operations and becomes a true corporate priority.

As the Carbon Management Programme develops, the Council will need to consider more aspirational, larger investment projects in order to reach the higher Carbon Reduction targets it has set itself.

There are 5 key areas of activity that will move the Council towards its Low Carbon vision;

### **1. Implementing Carbon Reduction projects**

See Projects Table in Section 4 of this Plan for further detail on the nineteen Carbon Reduction projects and ideas for further Carbon Reduction opportunities.

### **2. Making Carbon Reduction everyone's responsibility**

Making Carbon Reduction everyone's responsibility means embedding carbon management throughout the Council and ensuring that the aims of the programme are aligned with and not working against the rest of the organisation's activities. This involves working across diverse areas such as policy, finance and investment, communications and training and data management. The main way the Council will do this is by implementing the Carbon Embedding Matrix [See Appendix A].

### **3. Targeting budgets to Carbon Reduction projects and seeking new external funds**

The authority need to identify funding internally within existing resources and take full advantage of any external funding opportunities available to fund energy efficiency projects and schemes aimed at reducing carbon emissions and to reduce energy usage levels. This is further explored in section six.

### **4. Creating strong leadership and ownership of Carbon Management within the council**

This will be achieved by embedding carbon management throughout the Council using the Embedding Matrix [See Appendix A]. This involves a wide range of activities including ensuring carbon management is integrated into responsibilities of senior managers, as well as activity in areas such as communications and training and data management.

### **5. Effective partnership working**

Carbon Reduction by the Council cannot be achieved efficiently without full involvement and buy in from its partners. This is a Partnership issue of considerable importance and as such will be pursued within the partnership governance structure.

## 2.4 Targets and objectives

**The London Borough of Tower Hamlets will reduce CO2 emissions from Council Operations by 60% by 2020 (from 2007 levels).**

The Council has set Carbon Reduction targets (using 2007 as the baseline) as follows;

25% reduction by 2012

40% reduction by 2016

60% reduction by 2020



## 3 Emissions Baseline and Projections

### 3.1 Scope

This section outlines the current emissions and sets out what the Council hopes to achieve in terms of Carbon Reduction.

The scope of NI 185 is described as follows: “NI 185 is to include all CO<sub>2</sub> emissions from the delivery of Local Authority functions. In terms of the meaning of the word in legislation "function" covers both the duties and powers of an Authority. It covers all an Authority’s own operations and outsourced services. Even if the services are being provided by an external body (e.g. a private company) they remain the function of the Authority”.

Due to the challenges in collecting data, the scope of the Carbon Management Programme baseline is different to the one for NI 185. Work continues to finalise the NI 185 baseline, which will be more comprehensive than the LACM. The scope for the LACM baseline is as follows;

#### Stationary Sources:

- Council Offices (10 buildings)
- Community Centres (12 buildings)
- Idea stores (4 buildings)
- Libraries (5 buildings)
- Leisure centres (7 buildings) - These are managed by Greenwich Leisure Limited (GLL)
- Secondary schools (14 schools)
- Special schools (6 schools)
- Primary schools (63 Primary, 3 Junior, 3 Infants & 6 Nursery Schools)
- Housing (13 Blocks). This relates to electricity consumption for the landlords’ areas and gas used by communal boilers. Emissions from housing itself is not included
- Street lighting and street furniture

#### Transport:

- Transport from Waste collection service (Veolia)
- Transport from Parks department services (Fountains)
- Council fleet
- Essential car user
- Casual car user

- Business transport including taxis

**The council has not included the following emissions in its baseline;**

- Social housing
- Transport related to procurement contracts
- Embedded carbon from goods procured
- CO<sub>2</sub> emissions from water usage
- Commuting (council staff traveling to and from work), emissions from staff working remotely and courier services
- Embedded emissions from Waste from Council buildings

It was decided not to include social housing because the council does not manage this sector itself. The Borough's social housing is managed by an Arms Length Management Organisation (ALMO) – Tower Hamlets Homes (THH).

Procurement based emissions pose a significant challenge for any local authority carbon management programme due to the sheer volume of outsourced services the Council procures. Council Procurement staff are currently looking at how to address carbon emissions in this significant area and are developing a robust sustainable procurement strategy that will incorporate Carbon Reduction and accounting measures.

The Council has not included CO<sub>2</sub> emissions from water usage because it does not, as yet, have the full consumption figures. Work is being undertaken in this area and there are also targets around reducing water consumption in the council's Environmental Strategy and Action Plan (2007-2010).

### **3.2 Baseline**

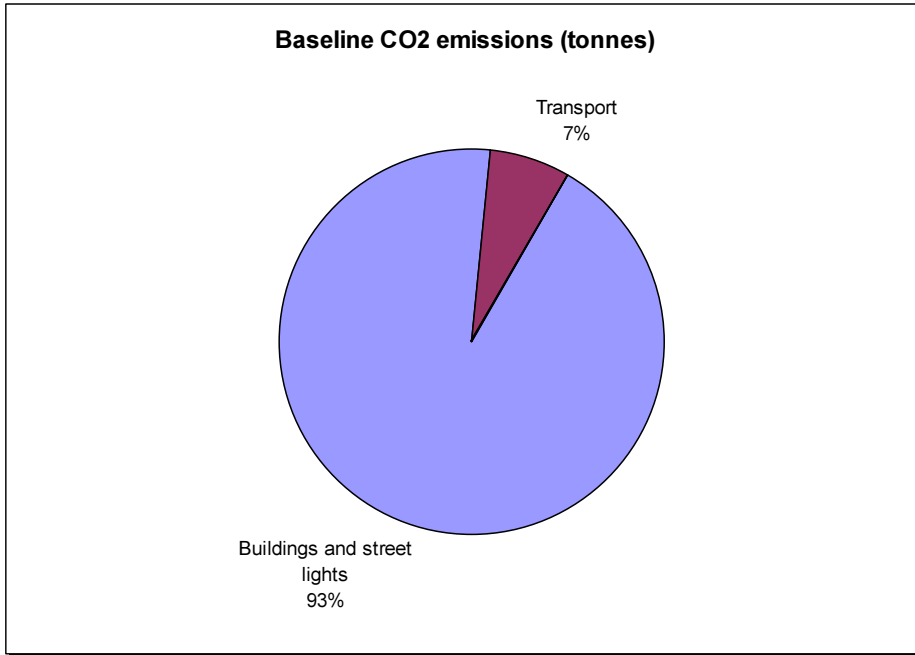
The baseline has been calculated to determine the carbon 'footprint' of the Council. This data allows the Council to understand and prioritise those areas where action is required and can be best achieved and also to measure progress in Carbon Reduction over the forthcoming years.

The baseline data is for the financial year ending 31<sup>st</sup> March 2008. This coincides with NI 185 reporting. The baseline uses the carbon factors outlined in the Annex of this Plan. [See Factors Benchmarking & References table]

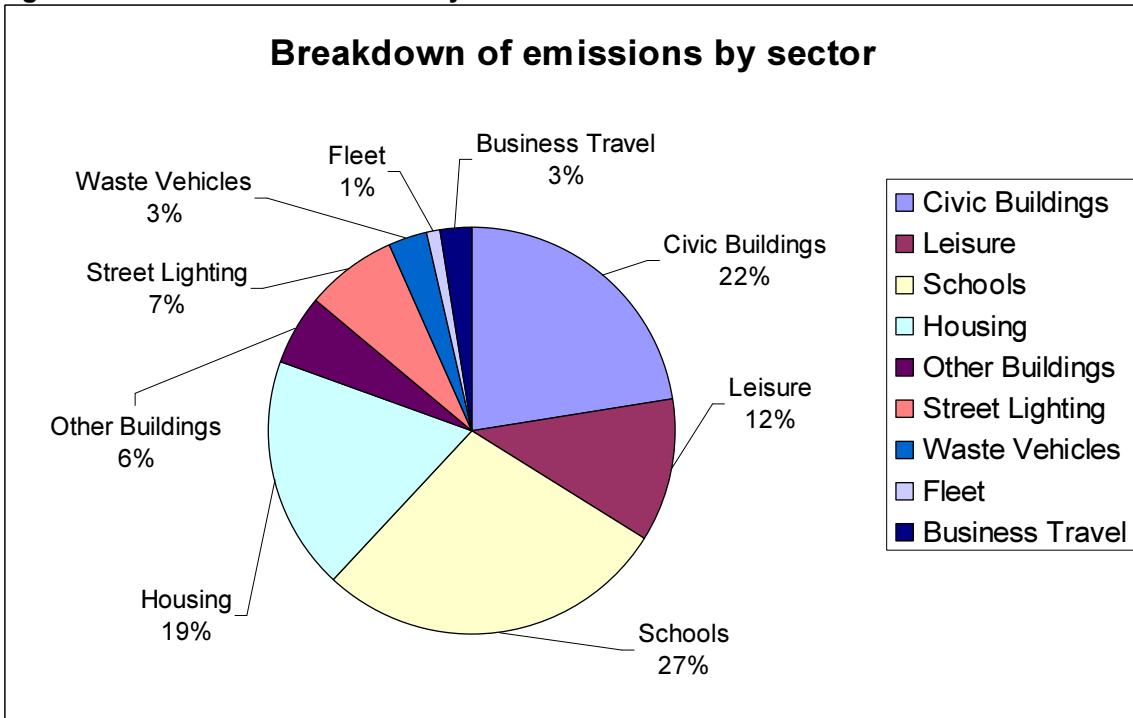
**Table 2 – Summary table of emissions for baseline year 2007/08:**

	Total	Buildings and street lights	Transport
<b>Baseline CO<sub>2</sub> emissions (tonnes)</b>	42,870	40,025	2,845
<b>Baseline Cost (£)</b>	3,412,416	2,923,222	489,194

**Figure 6: Summary of emissions for baseline year 2007/08**



**Figure 7: Emissions broken down by Sector**



### 3.3 Projections and Value At Stake

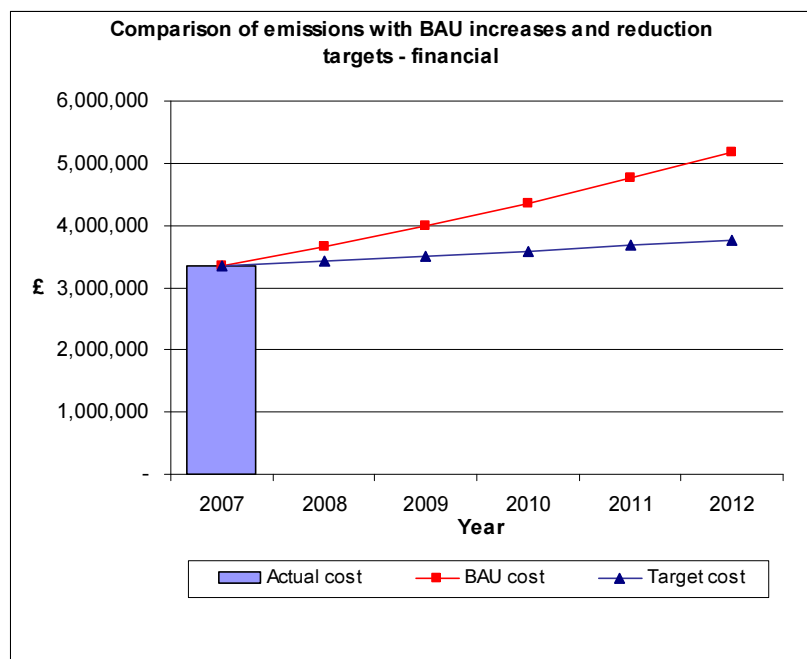
#### The Cost of Not Doing the Programme

	2008	2009	2010	2011	2012
<b>Total Value At Stake (£)</b>	<b>232,717</b>	<b>492,192</b>	<b>781,002</b>	<b>1,101,964</b>	<b>1,458,158</b>
<b>Cumulative Value At Stake (£)</b>	<b>232,717</b>	<b>724,909</b>	<b>1,505,910</b>	<b>2,607,875</b>	<b>4,066,033</b>

Figure 8 (below) shows the comparison between the Government’s predicted increases in energy costs to the Council if it continues ‘Business As Usual’ and does not take steps to reduce its carbon emissions compared with the ‘Reduced Emissions Scenario’ which is the predicted reduction in costs if the Carbon Reduction targets are met. This is known as the Value At Stake (VAS).

The Cumulative Value At Stake (Value At Stake over time) is represented in the graph by the triangular space between the red and blue lines. This has been calculated to be around £4 million if the Council hits the 25% reduction target by 2012. (This does not take into account the cost of implementing the projects).

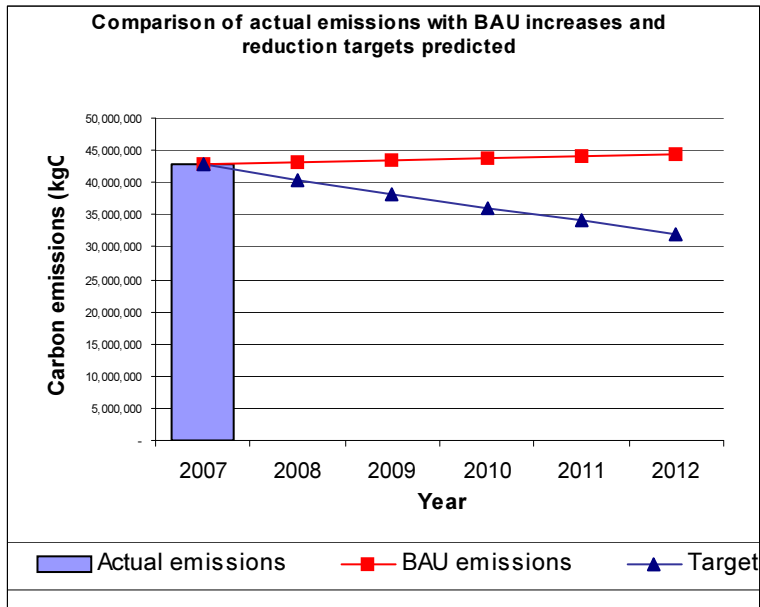
**Figure 8 – Financial Value At Stake**



[The projections in the Value At Stake graph are based on DTI, BERR and Carbon Trust assumption growth factors]

Figure 9 (below) shows the Carbon Value At Stake. This is the total cumulative CO<sub>2</sub> savings to be gained from achieving the 2012 reduction target of 25% and is calculated to be 37,913 tCO<sub>2</sub>. The Business As Usual (BAU) scenario (if no action is taken) is that the Council's carbon footprint will increase by 1,521 tCO<sub>2</sub> to 44,374 tCO<sub>2</sub> per annum by 2012.

**Figure 9 – Carbon Value At Stake**



## 4 Carbon Management Projects

This section provides the detail around the Programme’s Carbon Reduction projects, for example how they were identified and prioritised; how the projects move forward, how well they add up against the reduction target and how the shortfall will be met over time and finally how future projects will be identified.

### Background

At the beginning of the Programme, the Board and Team began by looking at types of projects from the Carbon Trust’s “Top Ten” list – some of the lower investment projects that have delivered the best savings for other organisations that have participated in the Programme. The Top Ten list is as follows;

- Cavity & Loft Insulation
- Voltage Optimisation
- Variable Speed Drives
- Pool Covers
- Lighting Upgrades & Controls
- Heating Controls & Zoning
- Server Virtualisation
- Printer Rationalisation
- Photocell control streetlights/bollards
- Hybrid/Alternative Fuel Vehicle

Projects have been developed in 7 of the 10 areas. The Council also identified existing projects that were already being undertaken that would also contribute to the Carbon Reduction targets.

### 4.1 Existing projects

All the projects in this table have funding identified and allocated and are in some stage of implementation.

Ref	Project	Lead	Cost			Annual Saving		Pay back (yrs)	% of Base line	Year
			Cap'l	Rev'ue	Res'ce	Fin (£)	tCO <sub>2</sub>			
RE1	<b>Chillers at Anchorage House</b>	Paul Harvey	18,000		0	N/a	12	4.5	0.028	2008
CL1	<b>Street Lighting - Westferry Circus</b>	Jason Minnette	Existing budgets	0		63,070	37	2.5	0.09	2008
CL2	<b>Leisure centre – pool covers</b>	Andrew Meads	N/a			N/a	100	3	0.42	2009

CL3	<b>Leisure services – Variable Speed Drives</b>	Andre w Meads	N/a			N/a	40	3	0.09	2008
CL4	<b>Green Travel Plan business mileage reduction</b>	Sam Margolis	Existin g budgets			N/a	16	-	0.037	April 2008-2012
TOTALS			18,000			63,070	205		0.67	

#### 4.2 Planned and funded projects

These projects are likely to take place and have funding allocated. They are well defined and the quantification of costs and savings fairly robust (in some cases the costs might need to be amended pending submission of contractor quotes). In order for these projects to move into the ‘Existing projects’ category, they must either be given senior management approval within the relevant directorate or project implementation must be further defined or any blockages to implementation removed.

Ref	Project	Lead	Cost			Annual Saving		Pay back (yrs)	% of Base line	Year
			Cap'l	Rev'ue	Res'ce	Fin (£)	tCO <sub>2</sub>			
RE2	<b>Mulberry Voltage Optimiser</b>	Paul Harvey	0		0	36,055	368	0	0.86	2009
CL5	<b>EST efficiency / “Eco driving” training for fleet drivers</b>	John Stevens	28,000			19,000	66	1.5	0.15	2009/10
RE3	<b>Corporate Energy Saving campaign (4 main staff buildings - Mulberry, Anchorage, Gladstone, 62 Roman Rd)</b>	?	3,000			£26,596 (3 buildings exc AH)	340	0	0.79	Being delivered over 2 years 2009/11
DR1	<b>System optimisation project at 10 boiler houses within ALMO</b>	Mick Cappe r	Extern ally funded			N/a	647	N/a	1.5	2009
TOTALS			31,000			£81,651	1,421		3.3%	

#### 4.3 Near term projects

These are projects that are planned to take place but do not as yet have funding allocated. In order to move to the existing projects table, the funding source must be defined and allocated.

Ref	Project	Lead	Cost			Annual Saving		Pay back (yrs)	% of Base line	Year
			Cap'l	Rev'ue	Res'ce	Fin (£)	tCO <sub>2</sub>			
CL6	<b>Parks – 3 operational buildings</b>	Katherine O'Brien	6,300			N/a	24	1.85	0.056	2010/11
CL7	<b>Reduction in Parks contractors' mileage</b>	Katherine O'Brien	0			N/a	16	0	0.037	2011/2012
TOTALS			6,300			0	40		Neg	

#### 4.4 Medium to long term projects

This section includes projects that may take place but are not yet planned in detail. The detail on these may be subject to feasibility studies or further work and therefore the quantification of costs and savings are less accurate.

Ref	Project	Lead	Cost			Annual Saving		Pay back (yrs)	% of Base line	Year
			Cap'l	Rev'ue	Res'ce	Fin (£)	tCO <sub>2</sub>			
RE4	<b>ICT – Thin Client</b>	Paul Ingram	£c3 million			TBC	640	3	1.49	2012
RE4	<b>ICT – Server Rationalisation</b>	Ken Bates	641,000			TBC	512	2.5	1.19	2012
CS1	<b>AMR – all schools</b>	?	?			N/a	1218		2.84	2012
CS2	<b>Energy awareness campaign – all schools</b>	?	?			N/a	255 (5% total)		0.59	2012
CL8	<b>AMR &amp; energy awareness GLL</b>	?	?			N/a	195		0.46	Annually to 2012
CL9	<b>Street lighting bulb replacement programme</b>	Jason Minnette/ Stan Perpie	Within existing budgets				150? TBC			2012
CL10	<b>AMR – 3 Ideas Stores &amp; 5 Libraries</b>	Sian Pipe	?				104		0.24	2012
DR2	<b>Automated Meter Readings (AMR) in council offices*</b>	Sian Pipe	?				1,174		2.74	2012
TOTALS			3,641,000				4,248		9.55	
<b>GRAND TOTAL ALL PROJECTS</b>			<b>3,696,300</b>				<b>5,914</b>		<b>13.62%</b>	

\*Council offices means here – 23 buildings



It should be noted that some projects are not being considered only for Carbon Reduction purposes. For example the ICT Thin Client project offers a host of benefits including reduction in costs for software licensing and will therefore will be considered not only on the value for money it offers in terms of Carbon Reduction (cost per tonne of carbon saved) but in terms of the other benefits.

## **Further Carbon Reduction Opportunities Being Considered**

Over the medium to long term more Carbon Reduction projects will emerge from review of the Asset Management Plan (AMP), the Building Schools for the Future programme and other work programmes. The council is also looking to develop projects in the following areas:

### Street lighting/ furniture

There are various street lighting and street furniture projects being considered. The Council has been selected to participate in a pilot project for LED street lighting with the London Development Agency that will be starting in 2009. The street lighting team are also looking at several developments in lighting technology.

### Schools

It has been estimated that energy savings of up to 15% could be possible through carrying out a combination of energy saving measures including reviewing heating control settings, upgrading controls, upgrading building fabric insulation/draught proofing, boiler upgrades etc. The carbon footprint of the Borough's 99 schools has been calculated to be 11,910 tCO<sub>2</sub> so potential carbon savings of 1786 tonnes may be achievable or 4.1 % of the baseline.

### Energy Management

The council has recently commissioned a monitoring and targeting software database - TEAM Sigma. The database will be used to import all utility bills, eventually including water, check and validate all bills within a nominated tolerance and pass for timely payment. The main advantage being the automated accuracy of the verification resulting in at least a saving of 5-10% over the customary hand checked bills.

### Heating and Controls

Reviewing and optimising control settings typically achieves energy savings of 5 - 15% of gas and HVAC (heating, ventilation and air conditioning) electricity. (Typically HVAC accounts for 35% of total consumption).

### AMR - Automated Meter Reading

An AMR implementation programme is on track to install upgraded meters across all council sites and the majority of schools in the borough. Some capital funding has already been secured for this project. The meters will allow data to be fed back half hourly for both gas and electricity pulses directly into the TEAM Sigma software

allowing each site to be accurately measured and recorded. Savings of at least 10-15% can be expected on completion of this project.

### Boiler replacement

Boiler plant serviceable life is 20 years so there should be a regular replacement of heating plant across the sites. Replacing an older boiler with an efficiency of 70% with a condensing boiler with a seasonal efficiency of 89% will achieve a 27% energy saving.

### Lighting

8% energy savings can be achieved by replacing T12 (38mm) fluorescent lamps with T8 (26mm) fluorescent lamps. Savings of approximately 20% can be achieved by upgrading to electronic light fittings. Lighting controls typically achieve 20 - 40% savings. Lighting upgrades in suitable buildings will be explored by the Facilities Management team.

## 5. Carbon Management Plan Financing

### 5.1 Assumptions

- **Assumption 1 - Carbon impact of other council activities**

The impact of projects within the Capital Programme on the Carbon Management Programme has not been measured. There may be building projects scheduled that may negatively impact on the Carbon Reduction targets.

The need to carry out an impact assessment of the Capital Programme and other council work programmes that may impact on this programme has been identified and agreed as an action by Corporate Management Team (CMT) in November 2008. The resources to undertake this piece of work have not yet been identified. However the work should aim to be completed by March 2010.

- **Assumption 2 - Effective project management**

Effective programme management is critical to the success of the Programme as a whole and it is imperative that projects employ council protocol around project management. Where appropriate, risk assessments should be carried out and recorded in the Council's risk register.

- **Assumption 3 - Difficulties of estimating savings per project**

It is difficult to estimate savings per project as the Carbon Reduction will be an estimated figure. The cost of the current utility supplies is already known, however given the volatility of the market, it is difficult to forecast for future years.

For example, a project may save 5,000 kWh of electricity units bringing in a potential saving of £5,000 and then due to an increase of electricity prices by 50%, the £5,000 saving may not be realised. (These values are for example purposes only and do not represent a true example).

It is thought that the majority of the projects are non-cashable on the grounds that current budgets do not reflect actual expenditure. This shall need to be considered in the future and reflected in the medium term financial plan accordingly.

**• Assumption 4 - Difficulties in calculating the opening baseline**

The Council is in the process of implementing a target and monitoring piece of energy software, which shall capture all energy related information for the Council’s buildings and this will provide substantial information for management. Included in the baseline some properties are shown with their estimated energy consumption as this software is not in place. Therefore, potentially the opening baseline is over or understated..

The collection of some energy usage is difficult due to its nature, for example business travel and therefore there is again potential scope that the opening balance is misstated.

**5.2 Benefits / savings – quantified and un-quantified**

	2008/09	2009/10	2010/11	2011/12
<b>Annual cost saving (£)</b>	<b>63,070</b>	<b>81,651</b>	<b>N/a</b>	<b>?</b>
<b>Annual CO<sub>2</sub> saving (tonnes)</b>	<b>193</b> (projects RE1, CL1, CL2, CL3, CL4)	<b>1,421</b> (projects RE2, CL5, RE3, DR1)	<b>24</b> (project CL6)	<b>5,914</b> (all medium to long term projects & CL7)
<b>%Reduction of baseline</b>	<b>0.45%</b>	<b>3.3%</b>	<b>neg</b>	<b>9.55%</b>

**Unquantified benefits:**

- This programme will directly contribute towards NI 186. As a consequence of the Council using less gas the levels of atmospheric nitrogen oxides and PM10s reduce, directly assisting performance against NI 194 (Air Quality indicator), whilst improving the efficiency of communal heating helps residents avoid fuel poverty, measured by NI 187.
- Another important benefit is improved reputation with staff, stakeholders and the public

### **5.3 Additional resources**

The Council does not currently have any additional resource identified to invest in Carbon Reduction projects. Therefore it will explore the use of the following two external funding streams that have been identified:

#### **Salix Finance**

Salix Finance was set up in 2004 by the Carbon Trust to work exclusively with Local Authorities and other members of the public sector to reduce energy costs and carbon emissions through investment in energy efficiency and renewable technologies. The focus of Salix Finance is that projects must deliver both CO<sub>2</sub> and revenue benefits and operates on a match-funding basis (typically £250,000 on a 50/50 split). A key element of the application is focussed on how energy consumption and costs are captured and monitored and therefore the Council will need to ensure that robust monitoring systems are in place before any application is proposed.

#### **London Climate Change Agency**

The London Climate Change Agency (LCCA) is a subsidiary of the London Development Agency (LDA) and implements and supports climate change mitigation projects across London. Their energy efficiency fund provides interest free loans to London Boroughs for compliant energy saving capital projects. Successful projects are funded 50% by the London Development Agency and 50% by Salix Finance. The loan repayments are then reinvested in new projects. The advantage of the LCCA Energy Efficiency Fund is that no match funding is required by the Council and they provide the resource to manage the fund.

#### **Internal Resource**

The authority will need to identify an additional fund to invest in Carbon Reduction projects which if feasible could then be used as match funding for Salix Finance. This would need to be proposed in line with the annual budget process for revenue and/or capital resources. The funding would need to operate as a self-financing trading account.

Some schemes, could qualify as invest to save projects and proposals would need to follow procedures already in place for Capital Projects. The project management would need to be robust in order to ensure that savings are made and therefore the funding effectively repaid through the savings achieved by consuming less energy.

Specific agreements would need to be made with schools if project funding was to be provided to them as they are responsible for their own finances and the authority would want to ensure the funding was returned for future reinvestment in further projects.

For example, a project could need £15,000 of investment which will mean a reduction in energy consumption resulting in £5,000 saved on energy costs per annum. This project would therefore pay back the £15,000 over the following three years and then any additional savings would remain with the service or could be offered up as a Gershon saving.

## 5.4 Financial costs and sources of funding

This is an important table. It summarises the total costs, split into revenue and capital. The Carbon Trust strongly recommends every Carbon Management Programme to have its first two years fully funded.

Figures in £	2008/09	2009/10	2010/11	2011/12
<b>Annual costs:</b>	<b>18,000</b>	<b>31,000</b>	<b>6,300</b>	<b>3,696,300</b> (2 projects only)
<b>Total annual capital cost</b>	<b>18,000</b>	<b>31,000</b>	<b>6,300</b>	<b>3,696,300</b>
<b>Total annual revenue cost</b>				
<b>Total costs</b>	<b>18,000</b>	<b>31,000</b>	<b>6,300</b>	<b>3,696,300</b>
<b>Committed funding:</b>	<b>18,000</b>	<b>31,000</b>	<b>0</b>	<b>0</b>
<b>Committed annual capital</b>				
<b>Committed annual revenue</b>				
<b>Total funded</b>				
<b>Unallocated funding</b>	<b>0</b>	<b>0</b>	<b>6,300</b>	<b>3,696,300</b>
<b>Unallocated annual capital</b>				
<b>Unallocated annual revenue</b>				
<b>Total unfunded</b>	<b>0</b>	<b>0</b>	<b>6,300</b>	<b>3,696,300</b>

## 6. Actions to Embed Carbon Management in the Organisation

See Appendix A (page 39) for the Embedding Matrix

At the beginning of the Programme (June 2008) the council scored 10 out of a possible 35 points using the Carbon Management Embedding Matrix, scoring an average of 1.4 for each section and performing best in the area of Data Management at 3.5. At the time of writing this Plan, the council has made some improvement and now scores 15 out of a possible 35.

	Corporate Strategy	Prog Managem't	Responsibility	Data Managem't	Comms & Training	Finance & Investment	Policy alignment	Total
June 08	1.5	1	1	3.5	1	1	1	10
April 09	1.5	3	2	4	1.5	2	1	15
April 2011	5	5	5	5	5	5	5	35

The council aims to achieve Level 5 in each of the six sections of the Matrix by April 2011. The Council has already made progress in embedding carbon management within its operational activities. A report was submitted to the Corporate Management Team (CMT) in November 2008 with various recommendations, all of which have been agreed and are included below.

### 6.1 Corporate Strategy – embedding CO<sub>2</sub> saving across the organisation

The Council currently scores 1.5 for Corporate Strategy. Although it does not have a Climate Change Strategy as yet, this Carbon Management Plan makes reference to Climate Change and is a significant step forward in addressing the council's emissions and reducing its impact. The following actions were agreed by the Corporate Management Team (CMT) in November 2008;

- To refer approval of business cases for Carbon Reduction projects to the Asset & Capital Management Board.
- To require that all new capital scheme funding applications include a Carbon Impact Assessment
- To review the Asset Management Plan (AMP) and the Revenue Implications assessment of the 2008-11 Capital Programme to assess the forward CRC risks being created by schemes already agreed within the programme, in the context of the AMP's ability to deliver savings over the medium term.

- To consider whether all 2009/10 Service Plans should include a carbon budget assessment to inform financial planning for 2010/11 and include delivery of identified Carbon Reduction projects

Further actions to make progress in this area include;

- Senior endorsement and publication of the Carbon Management Plan and CO<sub>2</sub> reduction targets
- Inclusion of CO<sub>2</sub> saving targets in the Strategic Plan
- Embedding Carbon Management actions into Strategic, Directorate, Service and Team Plans.

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

The Council currently scores 3 out of 5 against Programme Management. The Carbon Management Board and Team meet regularly and plans are in place for regular reporting to Senior management, for example annual reporting against targets to Cabinet and CMT. Actions to make progress in this area are covered in Section 7 of the Plan.

## **6.3 Responsibility – being clear that saving CO<sub>2</sub> is everyone's job**

The Council currently scores 2 in this area. Carbon Reduction is currently a part time responsibility of a small number of individuals. Actions to make progress in this area include;

- Carbon Management integrated in to responsibilities of department heads and senior managers
- Lead Member identified with responsibility for Carbon Reduction
- Establishing a network of 'carbon champions' across directorates to build engagement at the local level through the Corporate energy saving campaign
- The inclusion of specific carbon saving responsibilities in relevant job descriptions from Heads of Service through to junior positions.
- The use of carbon saving objectives for staff as part of their performance management
- Carbon Reduction targets included in Directorate plans

## 6.4 Data Management – measuring the difference, measuring the benefit

The Council currently scores 4 in this area. Annual collection of CO<sub>2</sub> emissions must now be undertaken as part of NI 185 reporting. This presents a real challenge, one that this authority shares with all local authorities across the country. Actions to make progress in this area include;

- The asset register will be studied in more depth to identify emissions from sources not already identified
- Where the council does not procure energy for a particular building, the Council will contact the building occupier to request the actual energy consumption data. This will be collected annually.
- To ensure that the Council has a joined up approach to data gathering it is suggested that all data is consolidated enabling a one stop approach for all national indicators, the Carbon Management Programme and the CRC programme. This will be achieved by bespoke reporting automated by the TEAM Sigma database.
- In conjunction with the collection of energy consumption data we will collect other building related information e.g. Gross Internal Area (GIA), type of fuel used, age of the building, thermal performances of building and information on building services equipment, this enable detailed energy analysis of the building to be completed, allowing the worst performing buildings to be targeted for carbon savings projects. This will also ensure £/per tonne of CO<sub>2</sub> savings is minimised.
- Occupiers of the buildings will be notified of their building performance annually. Where a building is the subject of an energy awareness programme, they will be notified of their performance each month. Where the building is part of a carbon saving project, energy savings will be captured and communicated through this Programme and related communications strategy.

## 6.5 Communication and Training – ensuring everyone is aware

The Council currently scores 1.5 in this area. Staff are currently given Carbon Management information on an ad hoc basis. Actions to make progress in this area include;

- Develop a Communications Plan to communicate the Authority's successes to staff and local residents
- Develop rolling awareness campaign for staff around Carbon Reduction
- Training programme to be developed for specific groups of staff, e.g. support staff, cleaners, security etc



- Carry out staff surveys to monitor staff attitudes to carbon saving
- Put Carbon Management on the Senior Managers Conference agenda
- Inclusion of 'low carbon council culture' guidance in corporate induction programme (10 or so bullet points characterising what is expected of everyone to save carbon, e.g. 'we turn our computers and monitors off when we leave each night')
- Develop Corporate training programme around Carbon Reduction
- Ensure the Aspiring Leaders Programme includes Carbon Management training

## **6.6 Finance and Investment – the money to match the commitment**

This area is covered comprehensively in Section 5 of this Plan. The Council currently scores 2 in this area. Carbon Reduction projects currently rely on ad hoc financing. The Council is looking to apply for funding from the Energy Efficiency Fund operated by the London Climate Change Agency (LCCA), as explained in section 5.3, and will implement the following actions in order to make progress on financing of Carbon Reduction projects;

- Write protocol for all projects being considered by the three corporate boards incorporating whole life costing methodology and funding opportunities. Project owner – Polly Wicks, Procurement. By Dec 2009.
- Set up Invest to Save fund for Carbon Reduction projects. Owner Alan Finch. By Dec 09.
- Look into opportunities for exploring regional collaboration/ shared solutions with other Local Authorities around sustainability agenda e.g bulk procurement of energy, sustainable procurement and Carbon Reduction opportunities. By Dec 09.

## **6.7 Policy Alignment – saving CO<sub>2</sub> across your operations**

The Council currently scores 1 in this area meaning that policy alignment is very weak. Although a comprehensive review of existing policies is yet to happen, the following key actions were agreed by CMT and LAB in November 2008;

- To commence development of a corporate framework to verify, achieve and maintain Carbon Reduction targets over the longer term within the Strategic Plan.
- To amend the Capital Strategy to include the aim of 'reducing the Council's carbon footprint and assisting the community to do likewise'.

Further actions to move forward in this area include;

- Acting on policy alignment opportunities when they arise (for example the Leisure Services strategy is currently being drafted, Carbon Reduction options are currently being explored with colleagues in Leisure services)
- Review of key policies to be undertaken
- Formulate procedure for the ongoing review of policies
- Review of Capital projects from an energy / carbon whole life costing perspective

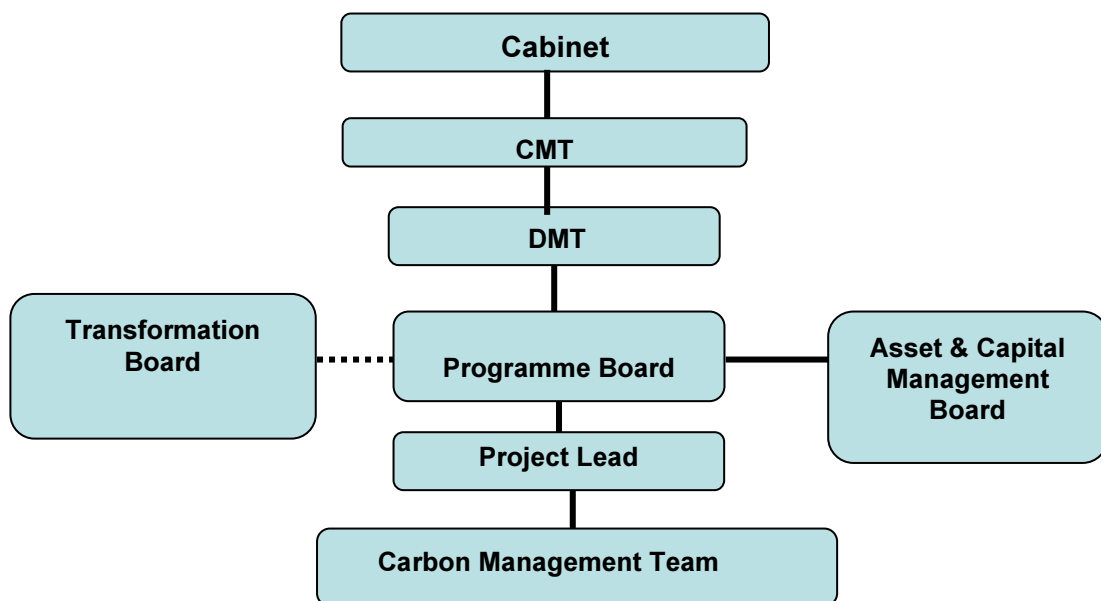
## 7 Programme Management

Good Programme Governance is fundamental to the success of this Programme. Significant time was spent choosing the right people for the Programme Board – individuals with sufficient knowledge and experience and most importantly commitment to ensuring the Programme’s success. It was also important to ensure that the key areas of the council in carbon management terms were represented.

Responsibility for the day to day running of the Carbon Management Programme falls to the Sustainable Development team within the Development and Renewal directorate, where the Programme Lead sits. It is the responsibility of the Programme Lead to work with project owners to help develop and support Carbon Reduction projects as well as drive forward the Programme as a whole.

### 7.1 The Programme Board – strategic ownership and oversight

How the Programme Board sits within the council governance structure



From May 2009, the Programme Board will meet monthly. The Board comprises;

- Chair: Jackie Odunoye (Chair)
- Councillor Sponsor: Joshua Peck, Lead Member for Resources
- Finance Champion: Alan Finch
- Programme Leader – Rachel Carless
- William Roberts, Area Director LAPs 7&8
- Robin Beattie – Strategy & Resources, CLC
- Mark Grimley - Organisational Development
- Richard Parsons –Procurement & Corporate Programmes
- Jim Roberts, Head ICT
- Pat Watson, School Buildings Development
- Ann Sutcliffe – Building Schools for the Future (BSF). TBC
- Andy Algar – Corporate Property

#### **Programme Board Terms of Reference:**

The Programme Board provides strategic oversight of the Carbon Management Programme. Specifically the Programme Board will:

- Champion and provide leadership on carbon management within the Authority
- Set and review the strategic direction and targets, ensuring the objectives of the Carbon Management Programme are in line with those of the Local Authority
- Own the scope of the Carbon Management Programme and prioritise the list of Carbon Reduction projects which it comprises, ensuring sufficient projects are identified, quantified and prioritised to reach the targets
- Monitor progress towards meeting the objectives and targets, based on reports provided by Rachel Carless, the Programme Lead.
- Remove obstacles to the successful completion of carbon management projects
- Review and champion plans for financial provision to support carbon management projects
- Ensure that there is a framework in place to coordinate the management of projects within the Carbon Management Programme

Board meetings consist of reports on the health of the Programme provided by the Programme Lead. Updates are given on specific projects, risks to the programme, and performance against the aspirational targets. Issues are also discussed such as how the Carbon Management Programme can be effectively integrated into council procedures.

## 7.2 The Carbon Management Team – delivering the projects

- The Programme Lead will chair quarterly Team meetings
- The Programme Lead will review progress on activities and projects, identifying any blockages that need to be raised with the Programme Board
- The Programme Lead will meet at least monthly with the Project Sponsor to discuss progress.

The Carbon Management Team comprises;

- Rachel Carless (Programme Lead)
- Abdul Khan (Programme deputy)
- Corporate Property Services - Jonathan Arnold
- Energy contracts – Sian Pipe
- Finance – Paul Thorogood
- Communications – Claire Rudd
- Facilities management– Angela Dillon / Paul Harvey
- Street lighting – Stan Perpie
- Street lighting – Jason Minnette
- Fleet management – John Stevens
- Parks – Katherine O’Brien
- Schools - Kevin Joyce
- Sustainable procurement – Imran Yasin/ Ambia Begum
- ICT - Ken Bates
- ICT - Paul Ingram
- Adult Services – Angie Bull
- Leisure Services – Andrew Meads/ Michelle Davies

## 7.3 Succession planning for key roles

The Programme Sponsor is the Service Head Strategy, Regeneration and Sustainability. Should the current post holder leave this responsibility has been built into the work routine for this role. The Director of Development and Renewal, in future consideration of the responsibilities of this Service Head post will ensure that the function is covered effectively.

The Programme Leader responsibilities will be built into the job description of the Sustainability Officer's role and the Sustainability Manager will make sure that this is adequately resourced in the annual team plan,

## 7.4 Ongoing stakeholder management

Stakeholder	Means of Communication	How Often Communicated With	Contacted by Whom
Board	Meetings	Monthly	Programme Lead
Team	Meetings, email, phone, in person	Quarterly meetings	Programme Lead
All staff	Via Comms Strategy	As required	Comms Lead
Strategic Partnership	Great Place to Live Community Plan Delivery Group	Bi - monthly	Programme Lead / William Roberts (Board Member)
Community Plan Public Realm Sub Group Delivery Group	Update at meetings	Quarterly	Programme Lead
PCT	Develop Employee engagement strategy	Regular comms through Mark's role of Joint Director Organisational Development for PCT	Mark Grimley (Board Member)
Tower Hamlets Homes	Via THH Board membership	Quarterly	Programme Sponsor
Schools	Headteachers Bulletin & Quarterly schools energy newsletter	Minimum of quarterly	Programme Lead/ Childrens Services Lead
Community Groups and Wider Community	Local press and website	Minimum of quarterly	Comms Lead

## 7.5 Annual progress review

Progress will be monitored against the target regularly by the programme Board. The Carbon Trust will also follow up to measure the scale of our Carbon Reduction at the end of each financial year. The review will;

- Cover the cost and all benefits from the Programme - financial savings, either cashable or returned to 'rotating fund'



- CO<sub>2</sub> savings against reduction targets
- Less quantifiable benefits, such as influencing the local community (supporting NI 186)
- Align with NI185 reporting
- Report to CMT and Cabinet annually
- Report to DMTs twice yearly

### Projected CO<sub>2</sub> savings

	2008/2009	2009/2010	2010/2011	2011/2012
Total annual carbon savings (tCO <sub>2</sub> ) of quantifiable projects	193	1,421	24	5,914
			Total	7,552

## Appendix A: Carbon Management Matrix - Embedding

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

\* Major operational policies and procedures, e.g. Capital Projects, Procurement, HR, Business Travel  
The black line represents the council's current position (at March 2009). The target is to reach Level 5 in all areas by April 2011.