



APPENDIX 1

London Borough of Wandsworth

Draft Carbon Management Plan (CMP)

Date: 04/06/2010

Version number: 1.1

Owner: Alex Edwards

Approval route: Environment, Culture and Community Safety Overview and Scrutiny Committee, June 10th 2010 and Executive, July 5th 2010.

Approval status: Draft

Contents

Foreword from Bill Myers and Councillor Mrs McDermott	4
Foreword from the Carbon Trust.....	4
Management Summary	5
1 Introduction	7
2 Carbon Management Strategy	9
2.1 Context and drivers for Carbon Management.....	9
2.2 Our vision for Wandsworth 2018	11
2.3 Our low carbon vision	11
2.4 The strategic themes	11
2.5 Targets and objectives.....	12
Timeline of Carbon Reduction Initiatives	13
3 Emissions Baseline and Projections	14
3.1 Scope.....	14
3.2 Baseline	14
3.3 Projections and Value at Stake.....	16
4 Carbon Management Projects	20
The full project list as at 15 th April 2010 can be seen at appendix 1.	20
5 Carbon Management Plan Financing.....	22
5.1 Assumptions	22
5.2 Benefits / savings – quantified and un-quantified	22
5.3 Additional resources	23
5.4 Financial costs and sources of funding.....	24
6 Actions to Embed Carbon Management in Wandsworth Council	26
6.1 Corporate Strategy – embedding CO ₂ saving across the council	26
6.2 Programme Management	26
6.3 Responsibility.....	26
6.4 Data Management	26
6.5 Communication and Training.....	26
6.6 Finance and Investment	26
6.7 Policy Alignment	26
6.8 Engagement of Schools.....	26
6.9 Engagement of Suppliers	26
7 Programme Management of the Carbon Management Programme	27
7.1 The Carbon Management Board (CMB) – strategic ownership and oversight	27



7.2	The Carbon Management Team (CMT) – delivering the projects	27
7.3	Succession planning for key roles	27
7.4	Ongoing stakeholder management.....	27
7.5	Annual progress review	27



Foreword from Bill Myers and Councillor Mrs McDermott

Wandsworth Council has a longstanding track record of delivering high quality and value for money services for residents.

Since 1979 the Council has had an Energy Management Unit which has consistently worked to reduce energy use across the Council and save money by doing so. Since 1999/00 CO₂ emissions from Council buildings have been reduced by more than 11%.

In recent years, the Council has identified climate change as being a serious threat and as such, reducing carbon emissions is now one of the Council's corporate priorities.

At the beginning of 2009 the Council was accepted onto phase 7 of the Carbon Trust's Local Authority Carbon Management Programme. Between June 2009 and March 2010, the Council has benefitted from the Carbon Trust's extensive support and expertise, and as such, now has a Carbon Management Plan which sets out how the Council plans to continue achieving efficient and cost effective energy use that at the same time will reduce CO₂ emissions over the coming years and help mitigate the effects of climate change.

Bill Myers
Director of Technical Services

Councillor Mrs McDermott
Cabinet Member for Environment, Culture and Community Safety

Foreword from the Carbon Trust

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

Wandsworth Council was selected in 2009, amidst strong competition, to take part in this ambitious programme. Wandsworth 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 CO₂ by 20% by 2024/25 and underpins potential financial savings to the council of around £1.6 million.

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 Wandsworth Council in their ongoing implementation of carbon management.

Richard Rugg
Head of Public Sector, Carbon Trust

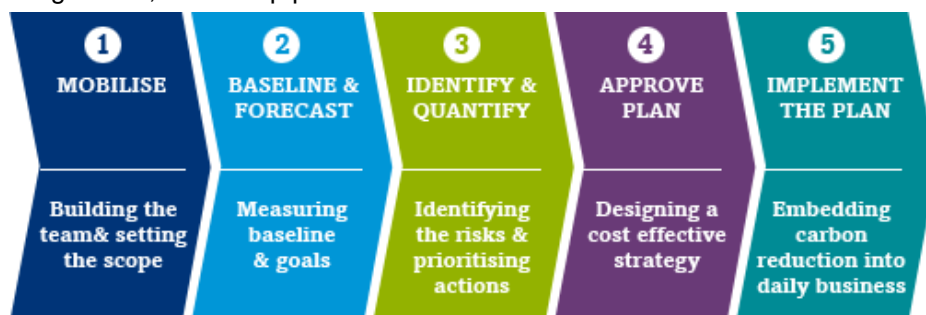


Management Summary

Introduction

This Carbon Reduction Plan sets out the steps that will be taken by Wandsworth Council in order to reduce carbon emissions occurring as a result of our own operations over the next 15 years - up until the end of the financial year 2024/25. There is also a shorter term target which covers the period up to the end of the financial year 2014/15.

As participants of the Carbon Trust's seventh phase of the Local Authority Carbon Management Programme, a five step process has been followed as summarised below:



The council has a longstanding and independently accredited commitment to wise energy management and has energy consumption data stretching back to before 1990. Considerable steps have already been taken to cut energy use (the principal contributor to the Council's carbon footprint).

Carbon Management Strategy

The global, National, regional and local context and drivers for carbon management are set out.

The Council has responded to these drivers by developing our own low carbon vision which is:

Wandsworth Council wants to lead by example to residents and businesses by showing how cutting carbon emissions can reduce costs

Within the CMP six strategic themes have been identified where CO₂ work will be carried out and these are: Social Housing, Schools, Premises, Staff Awareness, Leisure Centres and Street Lighting.

The target that has been agreed is that:

Wandsworth Council will reduce CO₂ emissions from Council Operations, from 2008/09 levels by:

10% by 2014/15

20% by 2024/25

Emissions Baseline and Projections

The baseline year chosen for the council's Carbon Management Programme is the financial year 2008/09. The baseline has been separated in two. The first part of the baseline has been called 'non-housing' and uses the NI 185 scope. The second part of the baseline is called 'housing' and the scope is all carbon emissions that emanate from the council's own housing stock.

The baseline summary table is below:

	Total CO ₂ Emission (tonnes) Non-Housing	Total CO ₂ Emission (tonnes) Social Housing
Baseline CO ₂ emissions (tonnes)	38,473	117,382
Baseline Cost (£)	£ 6,715,754	£ 17,381,423

Carbon Management Projects

Since June 2009 the CMT has been working to identify all projects that could contribute to reducing the council's CO₂ emissions. The projects identified have all been categorised as one of the following:

- A:** Projects that have already been completed or that are already funded and approved.
- B:** Projects that have been quantified in detail, but are not yet approved or committed to.
- C:** Projects that are currently only estimates and/or not currently feasible.

The full project list as at 15th April 2010 can be seen at appendix 1.

The project list will be updated quarterly.

Carbon Management Plan Financing

There are three sources of funding for the schemes contained in the projects list:

- Capital Programme - These schemes are met from the existing approved programme, BSF resources and possible future capital bids.
- Revenue Maintenance - Energy efficient equipment and materials are installed during the programme of routine maintenance.
- Energy Management Fund - This Fund has been created with Salix grant which has been matched by the Council. The use of this Fund requires that the cost of the project is repaid to the Fund over the payback period thereby replenishing the Fund for future projects.

In addition to the Salix resources of £100,000 added to the Energy Management Fund over the last four years the Council has or is expected to receive government grant of £300 million to fund the BSF schemes, £8 million grant from the Homes & Communities Agency and grants from the Carbon Trust for the installation of the solar panels on housing estates.

The Council's 30 year Housing Revenue Account Business Plan informs strategic housing decisions and includes estimates of all expenditure and income relating to the Council's housing stock. The plan currently includes over £130 million of capital expenditure anticipated to contribute to reducing the Council's carbon emissions by roof renewal (£33m), window renewal (£29m) and heating renewal and refurbishment (£75m).

Actions to Embed Carbon Management in Wandsworth Council

To ensure the effective implementation and success of the LACM, energy efficiency and carbon emissions reduction should be embedded across every area of the council. This is demonstrated from the corporate strategy, right through to data management, communication and training and finance and investment.

Programme Management of the Carbon Management Programme

Programme Management of the Carbon Management Programme has been key to developing a carbon management plan and identifying projects which will deliver a reduction in the council's carbon emissions. At the start of the programme a Carbon Management Programme Board and Team were established. Throughout the 10 month programme the Board met bi-monthly and the team met monthly.

The Board has provided senior, strategic ownership of the programme and will now take ownership of the carbon reduction target. The Board has also enabled the diverse set of projects from across the council to be brought together in one place. Establishing a Team has meant that project owners can come together and share ideas and ensure that there is coherence and co-ordination of carbon reduction activity. Both the Board and Team will continue to meet quarterly.

1 Introduction

Purpose of the Carbon Management Plan

This Carbon Reduction Plan sets out the steps that will be taken by Wandsworth Council in order to reduce carbon emissions occurring as a result of our own operations over the next 15 years - up until the end of the financial year 2024/25. There is also a shorter term target which covers the period up to the end of the financial year 2014/15.

It covers the process that has been followed as set out by the Carbon Trust, to establish the council's CO₂ emissions baseline, identify projects that will reduce carbon emissions, and quantify these in terms of potential savings, both CO₂ and financial.

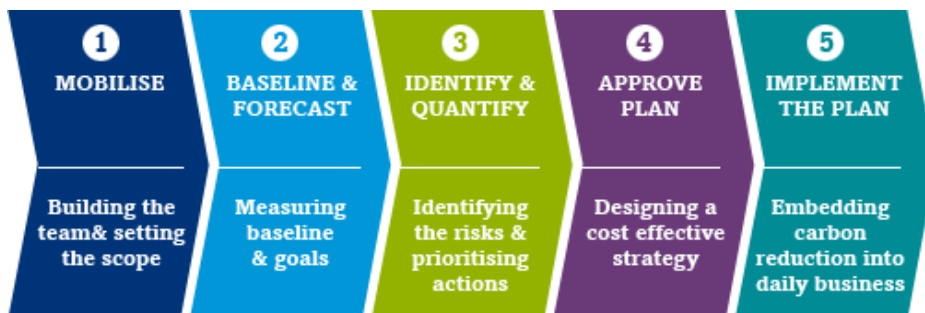
It describes the context and drivers for carbon management and the council's low carbon vision and how the council plans to embed carbon management across all operations.

It also makes reference to the other carbon reduction initiatives that the council is already, or is soon to be engaged in, such as the Carbon Trust Standard and the Carbon Reduction Commitment Energy Efficiency Scheme (CRC).

Background to the Carbon Management Programme

Through the Local Authority Carbon Management Programme, the Carbon Trust provides technical and change management guidance to help identify practical carbon and cost savings.

As participants of the Carbon Trust's seventh phase of the Local Authority Carbon Management Programme, a five step process has been followed as summarised below:



Our Track Record

The council has a longstanding and independently accredited commitment to wise energy management and has energy consumption data stretching back to before 1990. Considerable steps have already been taken to cut energy use (the principal contributor to the Council's carbon footprint).

In 1979 the council established an Energy Management Unit, and in 1992 signed a corporate commitment to Energy Management. In 1994 the council became Energy Efficiency Accredited.

More recently, in 2009 the council signed the Nottingham Declaration and also achieved the prestigious Carbon Trust Standard.

Compared to its 1990 baseline, the Council has already achieved approximately a 10% reduction in energy usage, excluding the savings that have been made from rationalising premises. This can be roughly equated to a similar carbon dioxide saving.

The council also has significantly exceeded its targets for CO₂ reduction since 2000. Figure 1. shows the CO₂ reduction from 2000, that the council hoped to achieve compared with the actual CO₂ reduction that was achieved.

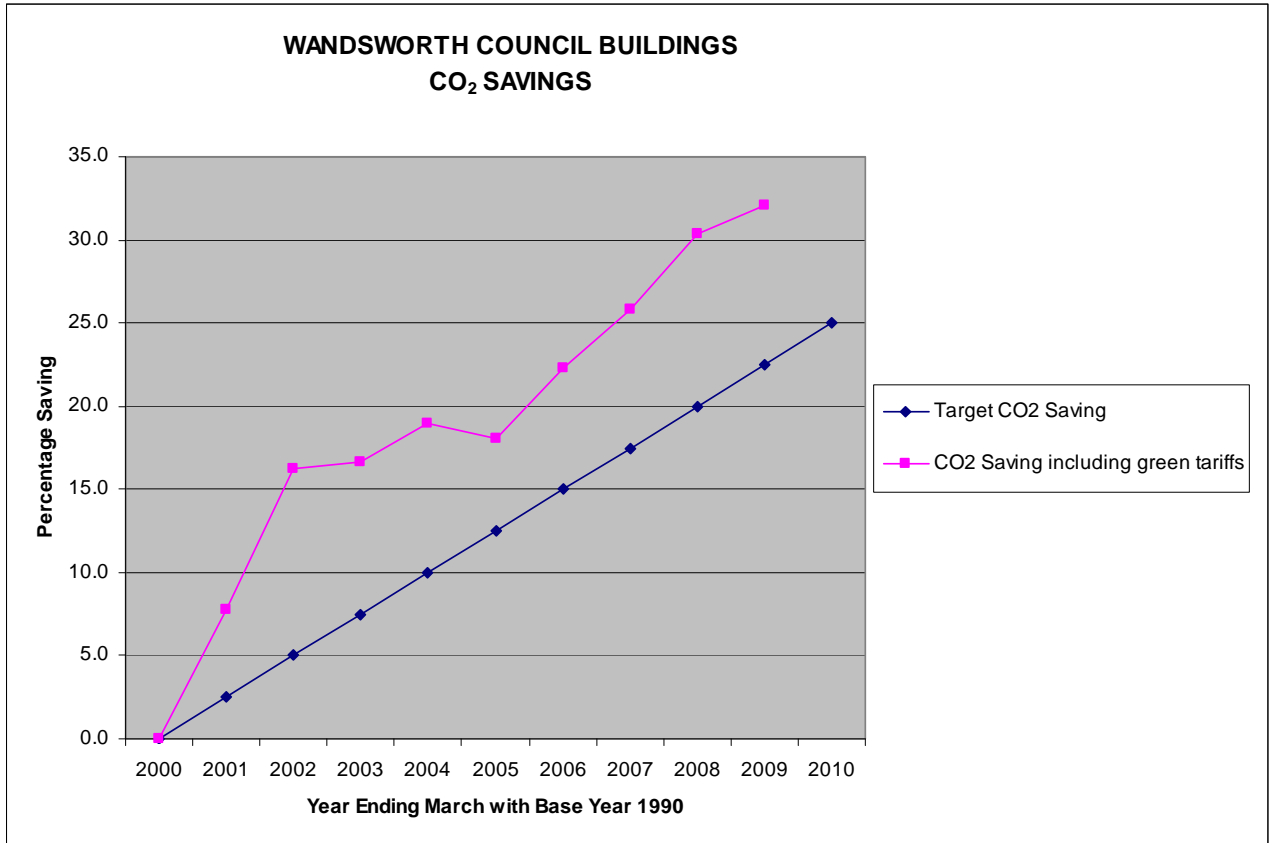


Figure 1.

2 Carbon Management Strategy

This section of the plan sets out the main reasons why reducing the council's carbon emissions is important. There are a number of drivers ranging from those that are global and national to more regional and local ones.

2.1 Context and drivers for Carbon Management

Global

Climate Change

Over the last few years, we have all become more aware of climate change and the need to manage our impact on the environment

There is now consensus among the international community that the world is warming and that this is mainly the result of human activities.

The UK climate is expected to become warmer, with wetter winters, drier summers, and more extreme weather events, such as heavy rain and high winds.

It is generally accepted that action needs to be taken now to reduce CO₂ emissions to limit the severity of the expected changes.

Peak Oil

Peak oil is also causing us to look at our energy consumption differently. Peak oil is a phrase often used to describe the situation when global oil supplies will reach a peak. Following this peak, oil supplies will decrease and may never rise again. Leading geophysicists predict that peak could already be occurring, or may occur within the next decade. Meanwhile, demand for oil continues to increase.

National

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 CO₂ emissions by 80% by 2050 in the Climate Change Act.

This has created a number of legislative drivers:

- **Display Energy Certificates:** As of 1 October 2008 there is a legal requirement for all public sector buildings with a total useful floor area of over 1,000m², to show a Display Energy Certificate (DEC) in a prominent place, clearly visible to the public. Wandsworth Town Hall currently has a DEC rating of D.
- **Carbon Reduction Commitment Energy Efficiency Scheme (CRC):** The CRC is a mandatory "cap & trade" emissions trading scheme for organisations whose total electricity consumption is greater than 6,000MWh or approximately £500k. If an organisation falls within the CRC scheme all electricity and gas emissions are included except for Social Housing and Transport. From April 2010 qualifying organisations must register and record every meter reading. The financial year 2010/11 is a baseline year and then in April 2011 each organisation will have to buy allowances for each ton of carbon at £12/ton based on their baseline year. To purchase the allowances in the first year is estimated to cost the Council £430,000 but in October of every trading year recycling payments will be made to participating organisations based on their performance in cutting their carbon emissions. It is initially anticipated that due to actions already taken and the restrictions in the scheme rules the Council will recover the majority of the cost of the allowances in the early years. Future years will be more dependent on performance.

The Department for Environment, Food and Rural Affairs (DEFRA) have also created two National Indicators specific to CO₂ reduction:

- **NI 185 – percentage CO₂ reduction from Local Authority operations:** the public sector is in a key position to lead on efforts to reduce CO₂ 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 CO₂ emissions from analysis of the energy and fuel use in their relevant buildings and transport, including where these services have been outsourced.
- **NI 186 - per capita CO₂ emissions in the LA area:** Local authorities are uniquely placed to provide vision and leadership to local communities by raising awareness and to influence behaviour change. The percentage reduction in CO₂ per capita in each LA will be reported annually. This will be produced by Central Government based on CO₂ emissions in the Local Area from business and Public Sector, domestic housing and road transport.

Regional

In October 2009 the Mayor published his draft replacement London Plan for public consultation - titled Shaping London. Stretching new targets have been put forward in this plan.

The Mayor believes London needs to set an example to the world as a sustainable, green city and will work with national and local government towards a target to reduce the capital's emissions by 60 % from their 1990 levels by 2025.

In October 2009 the Mayor launched 'Powering ahead – delivering low carbon energy for London', a prospectus supporting the expansion of the decentralised energy market in London. It recognizes the roles that the public and the private sectors have to play in delivering London's low carbon energy target. One area that has been identified as suitable for having a decentralised energy network is the Nine Elms regeneration area. It is envisaged that this will connect to other existing and planned district heating networks at Pimlico, Whitehall and Westminster and contribute towards the Mayor's target of providing 25% of London's energy supply from decentralised energy sources by 2025.

Most recently, in February 2010, the Mayor of London published his Draft Climate Change Mitigation and Energy Strategy which identifies how to create a low carbon London together with identifying opportunities for a new energy age.

Local

Local Authorities have a responsibility to demonstrate leadership and innovation in managing resources in a more sustainable way. The council recognises the challenges that we face in developing solutions to the local, regional, national and global environmental problems, such as climate change, peak oil and resource depletion.

Wandsworth's local economy and society depend on a healthy environment. To achieve this, the council recognises that it needs to work with its partners to tackle local and global environmental issues and place sustainability at the heart of everything it does. The council and Wandsworth Local Strategic Partnership (WLSPP) are committed to working together making this happen and have long term ambitions for a more sustainable future.

In Wandsworth's Sustainable Community Strategy, Wandsworth 2018, it sets out that the council and its partners are committed to:

1. a cleaner, greener, healthier and safer borough that does not compromise the wellbeing of future generations;

2. reducing CO₂ emissions to slow down climate change and reduce reliance on fossil fuels;
3. preparing for and adapting to the unavoidable effects of climate change;
4. tackling the consumption of resources, energy and pollution; and
5. demonstrating leadership on sustainability in partnership with local communities.

The WLSP has recently created an Environmental Sub-Group (ESG) and it has been agreed that an early action for the group will be to help tackle borough wide carbon emissions.

2.2 Our vision for Wandsworth 2018

In light of feedback from residents and partners and following a careful analysis of the borough today and the challenges and dilemmas it faces in the future, the WLSP has set out as one of its key aims to make Wandsworth:

A community of global citizens living within environmental limits in an attractive high quality local environment.

2.3 Our low carbon vision

In addition to the environmental benefits that can be achieved from reducing the council's carbon emissions, there are also financial benefits for the council and people who live and work in the borough. The council has developed a vision which reflects both the carbon and financial savings that will occur:

Wandsworth Council wants to lead by example to residents and businesses by showing how cutting carbon emissions can reduce costs

2.4 The strategic themes

Six key strategic themes have been identified. These themes each contain the projects that have been estimated to contribute the most significant CO₂ and financial savings.

- **Social Housing**
 - Social housing accounts for the largest amount of carbon emissions and therefore has a significant role to play in meeting the council's carbon reduction targets. A large number of projects have been carried out over the last few years. Funding has recently been secured to carry out an extensive cavity wall insulation programme.
- **Schools**
 - Wandsworth maintained schools account for nearly half of all non-housing emissions. There are approximately 60 primary schools and 20 secondary schools. There is an ongoing maintenance programme for primary schools and all secondary schools are due to have work carried out as part of the national Building Schools for the Future (BSF) programme. It is expected that the majority of scheduled work for both the primary and secondary schools will result in reduced CO₂ emissions.
- **Premises**
 - The Council has a large number of premises. As part of the recently launched CRC, there is a new requirement for every meter to be read at least every 6 months. Therefore a detailed financial assessment of the contribution that could be made by installing Automatic Meter Reading technology (AMRs) is currently being carried out.

- **Staff awareness**
 - Implementing a successful staff awareness programme is considered to be one of the most effective 'no' or 'low' cost ways to reduce carbon emissions. A programme is currently being developed and it is hoped that this will be launched within in the next few months.
- **Leisure Centres**
 - Leisure Centres, especially those which have swimming pool halls, account for a significant amount of the council's carbon emissions. A number of energy saving measures have recently been trialled at a small number of leisure centres and are due to be rolled out to a wider number imminently.
- **Street Lighting**
 - In 2008 the council approved a programme to make street lights more energy efficient by installing electronic ballasts. It is expected that this programme will result in considerable financial and energy savings in the long term.

2.5 Targets and objectives

Compared to its 1990 baseline, the Council has already achieved approximately a 10% reduction in energy usage. This could be roughly equated to a similar CO₂ saving.

The 10% figure excludes the savings that have been made from rationalising premises and from work conducted on improving the energy efficiency of the Council's social housing stock.

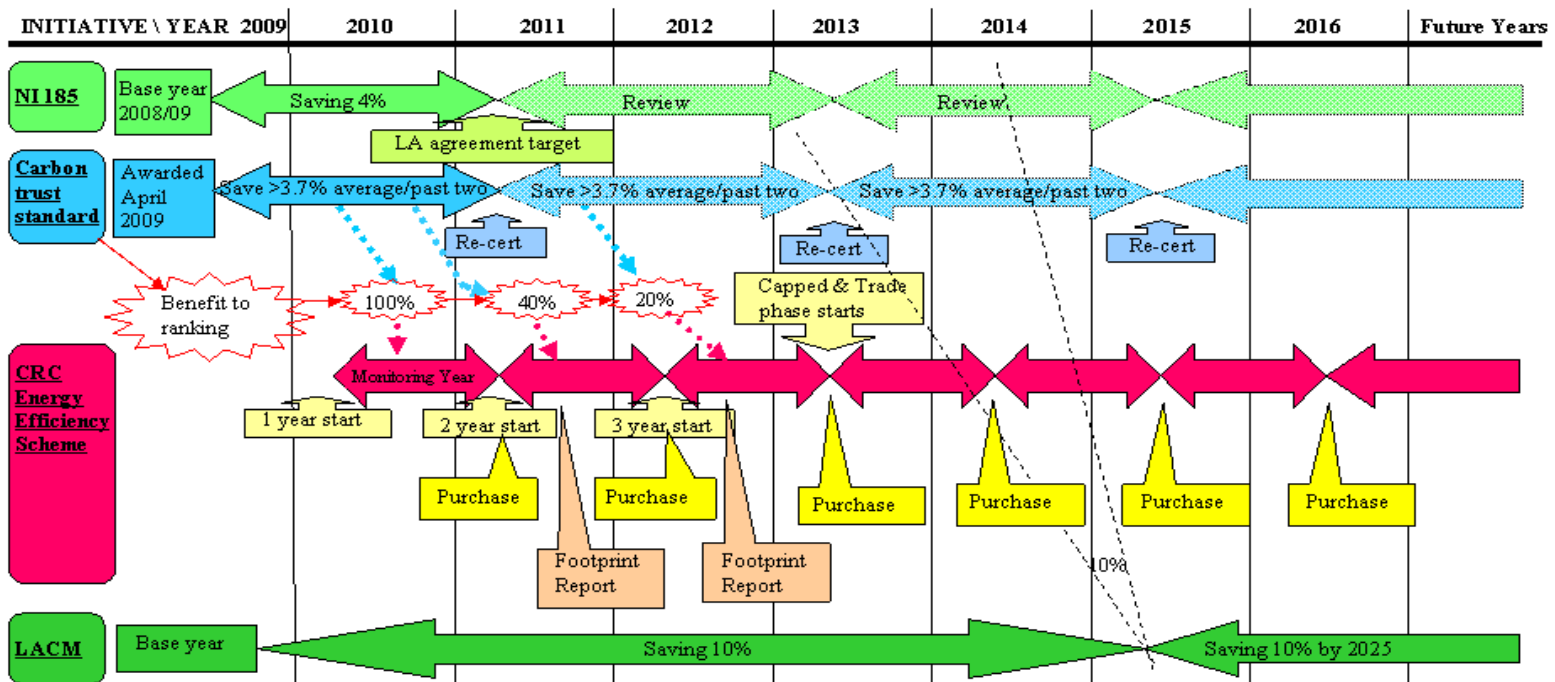
For the purposes of the current LACM programme, a target has been set using the most recent available baseline that is consistent with a widely accepted methodology – this is the 2008/09 outturn for National Indicator 185. In addition, emissions from social housing have also been included.

A long-term target of a 20% cut in our carbon footprint (as measured by NI 185 plus housing emissions) for the period 2008/09 to 2024/25 has been agreed as a minimum target. This will support the Mayor's target and at the same time takes into account previous energy savings work.

**Wandsworth Council will reduce CO₂ emissions from Council Operations,
from 2008/09 levels by:**
10% by 2014/15
20% by 2024/25

The council also has other carbon reduction targets to consider which have different baselines and components. A timeline of all carbon reduction initiatives has been created where all these initiatives can be seen along side each other. The timeline can be seen on the next page.

TIME LINE OF CARBON REDUCTION INITIATIVES



BASELINES Tonnes CO ₂	TARGET Tonnes CO ₂ / YEAR							
	2009	2010	2011	2012	2013	2014	2015	2016
CTS*	59,856		57,026		54,259**		51,610**	
CRC (PROJECTED***)		35,762						
LACM* (corrected)	62,645						56,381	
NI 185 (not corrected)	38,358		36,777		35,245**		33,712**	

* Includes Housing

**Projected using same target saving

***Subject to collation of School data / status of street lighting

3 Emissions Baseline and Projections

This section details the council’s carbon emissions baseline and the scope that has been used for calculating the baseline. The decision has been made to separate the baseline into two. The first part of the baseline has been called ‘non-housing’ and uses the NI 185 scope. The second baseline is called ‘housing’ and the scope is all carbon emissions that emanate from the council’s own housing stock.

This section also sets out both the carbon and financial values that are ‘at stake’ if the council were to do nothing and continue as it is doing at present.

3.1 Scope

As mentioned earlier, the council is subject to reporting against a number of Government National Indicators (NIs).

The indicator relating to the council reducing carbon emissions from its own operations – NI 185 – describes its scope as follows:

“The indicator is to include all CO₂ emissions from the delivery of local authority functions...It covers all an authority’s own operations and outsourced services...It relates to the energy used in buildings and transport of delivering the functions of a local authority, but not the embedded emissions in the goods procured by the authority...”

The NI 185 scope has been used for calculating the **non-housing** baseline and covers:

- Council owned buildings energy use (including schools)
- Building energy use for outsourced council functions (including schools)
- Street light energy consumption
- Council owned fleet fuel use
- Fleet fuel use for outsourced council functions
- Council owned business travel
- Business travel for outsourced council functions

To provide a more complete baseline, in addition to the areas covered by NI 185, an additional scope area has also been included, and this is the **housing** baseline and included:

- Energy use in council owned housing

3.2 Baseline

The baseline year chosen for the council’s Carbon Management Programme is the **financial year 2008/09**.

Table 3.1 – Summary table of emissions for baseline year 2008/09

	Total CO ₂ Emission (tonnes) Non-Housing	Total CO ₂ Emission (tonnes) Social Housing
Baseline CO ₂ emissions (tonnes)	38,473	117,382
Baseline Cost (£)	£ 6,715,754	£ 17,381,423

The diagrams on the next page (figures 3.1 and 3.2) show the breakdown of emissions for each of the two parts of the baseline. It can be seen how the key strategic themes outlined in 2.4 are reflected in the emissions breakdown.

COUNCIL BASELINE 2008/09
38,473tCO₂

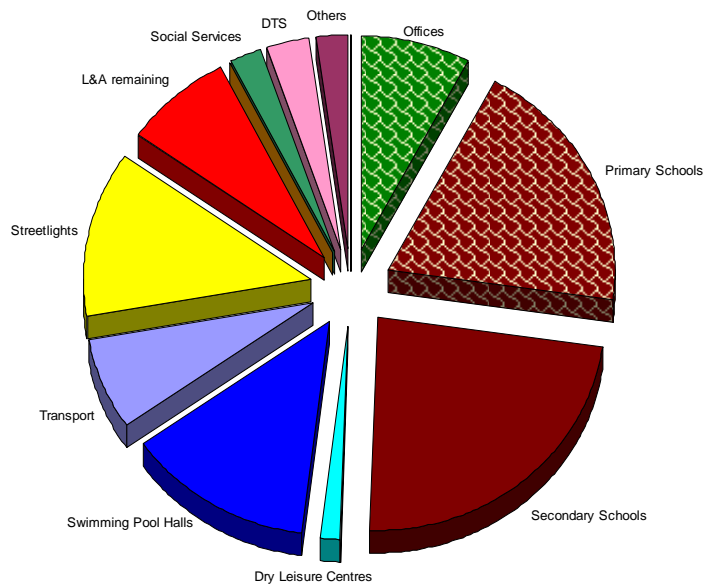


Figure 3.1 Summary of non-housing emissions for baseline year 2008/09

HOUSING BASELINE 2008/09
117,382tCO₂

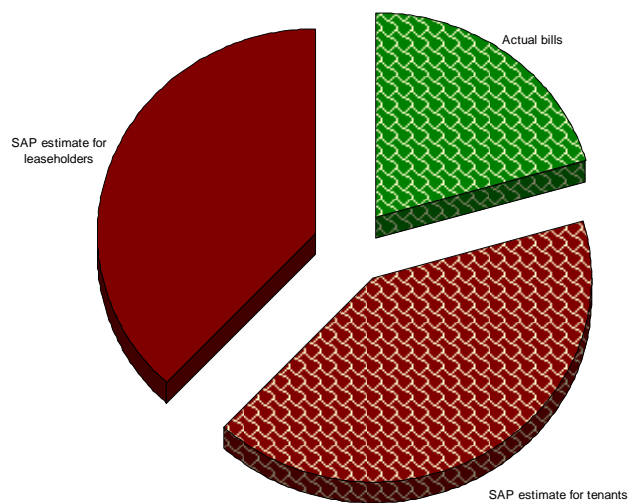


Figure 3.2 Summary of social housing emissions for baseline year 2008/09

3.3 Projections and Value at Stake

If the council continued to operate as it does currently, and made no changes, it can be predicted, using a Carbon Trust model, that the non-housing 'Business As Usual' (BAU) carbon value at stake would increase as seen with the red line in figure 3.2 below.

If the council meets the targets that have been agreed then non-housing CO₂ emissions should decrease as per the blue line figure 3.2 below.

Total CO₂ saved if the 20% target achieved = 8,754 tonnes

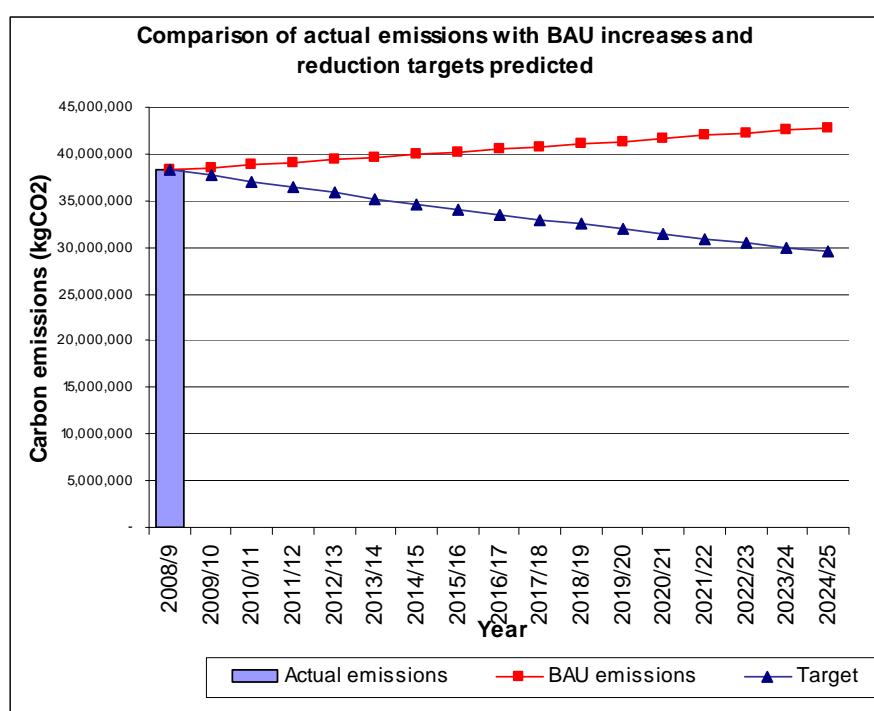


Figure 3.2 Non-Housing Carbon Value at Stake from Inaction

The non-housing financial value at stake can be seen in figure 3.3 below. Again, the red line demonstrates the predicted financial expenditure if the council does not make any changes to the way it currently operates.

However, if the targets for CO₂ reduction that have been agreed are met, then it is expected that the cost to the council will only increase as per the blue line in diagram 3.3. below. Even if the targets are met, the energy bill is still expected to rise. This is because of the predicted increase in fuel costs.

The total Value at Stake over 16 years = £ 43,502,912

The total cost = £122 million up to 2014/15 and £312 million by 2024/25

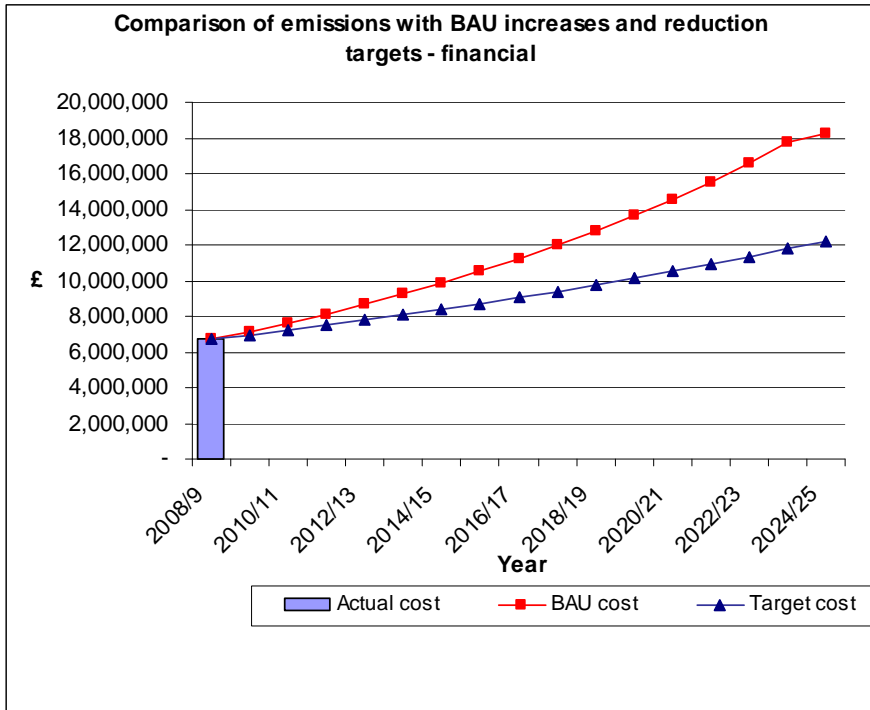


Figure 3.3 Non-Housing Financial Value at Stake from Inaction

If the council continued to operate as it does currently, and made no changes, it can be predicted, using the same Carbon Trust model, that the housing 'Business As Usual' (BAU) **carbon** value at stake would increase as seen with the red line in figure 3.4 below.

If the council meets the targets that have been agreed then housing CO₂ emissions should decrease as per the blue line figure 3.4 below.

Total CO₂ saved if 20% target is achieved = 12,196 tonnes

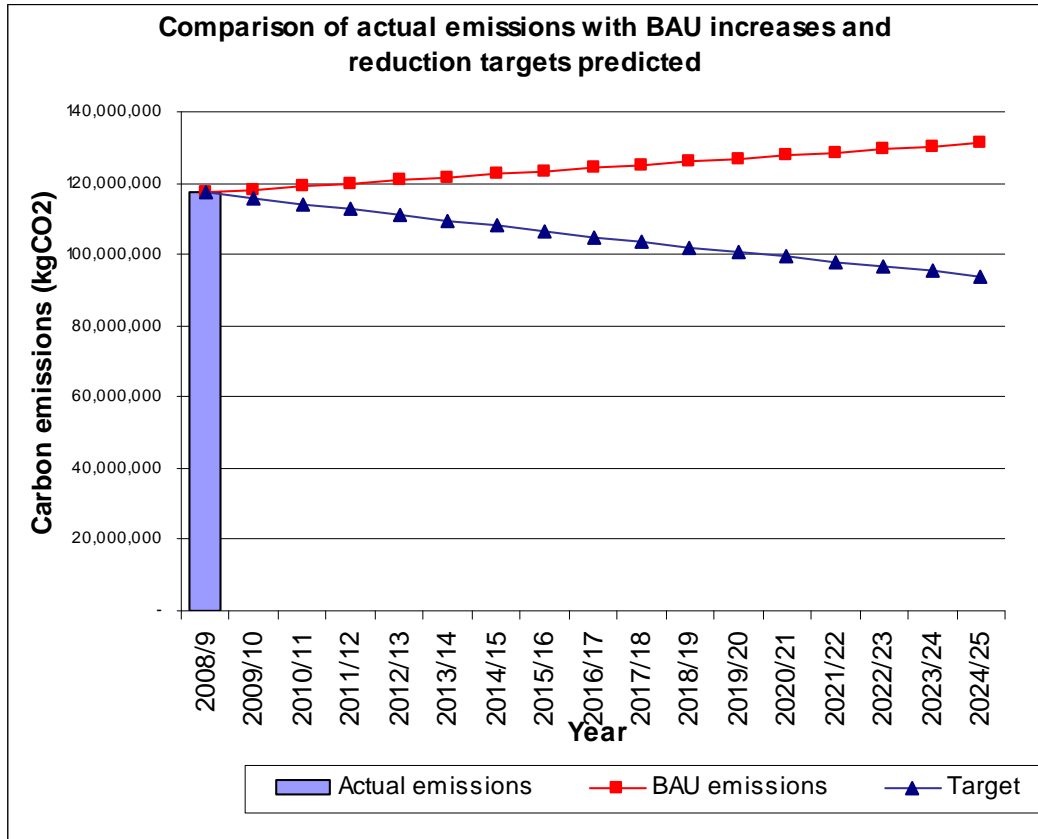


Figure 3.4 Social Housing Carbon Value at Stake from Inaction

The total Value at Stake over 16 years = £ 83,531,182

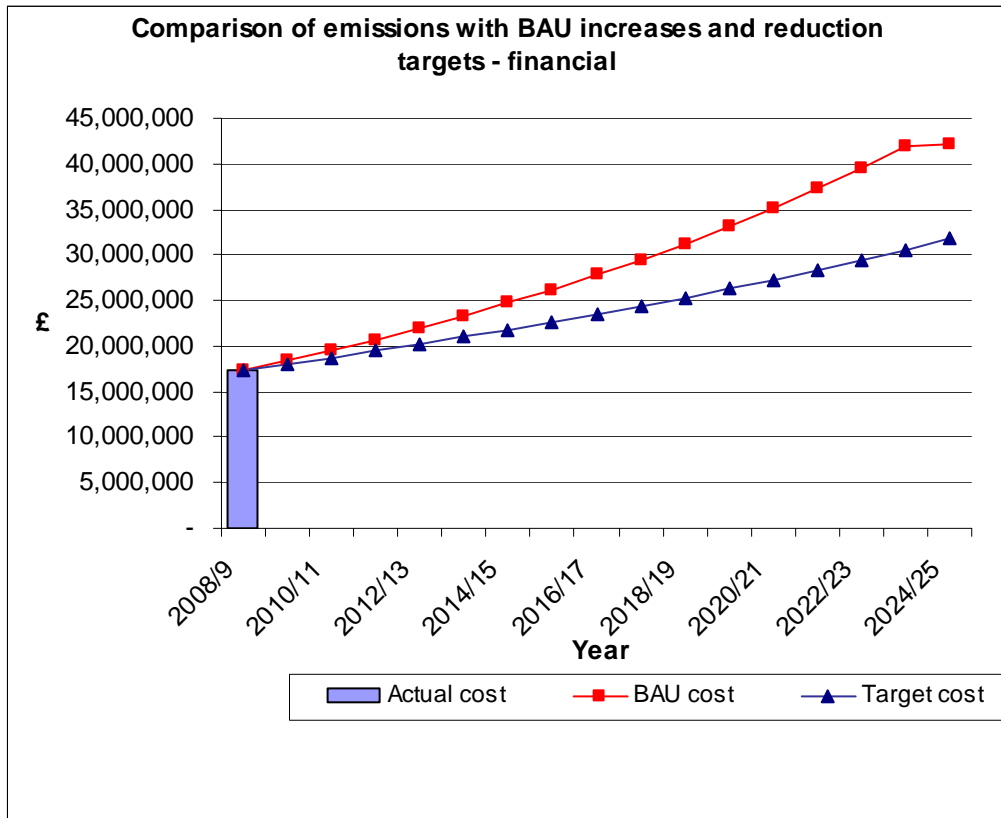


Figure 3.5 Social Housing Financial Value at Stake from Inaction

4 Carbon Management Projects

Since June 2009, the carbon management team has been working to identify all projects that could contribute to reducing the council's CO₂ emissions. The projects identified have all been categorised as one of the following:

- A:** Projects that have already been completed or that are already funded and approved.
- B:** Projects that have been quantified in detail, but are not yet approved or committed to.
- C:** Projects that are currently only estimates and/or not currently feasible.

The full project list as at 15th April 2010 can be seen at appendix 1.

The project list will be updated quarterly.

Figures 4.1 and 4.2 demonstrate the impact that the current list of projects and their predicted carbon reduction impacts will have against the targeted emissions reductions.

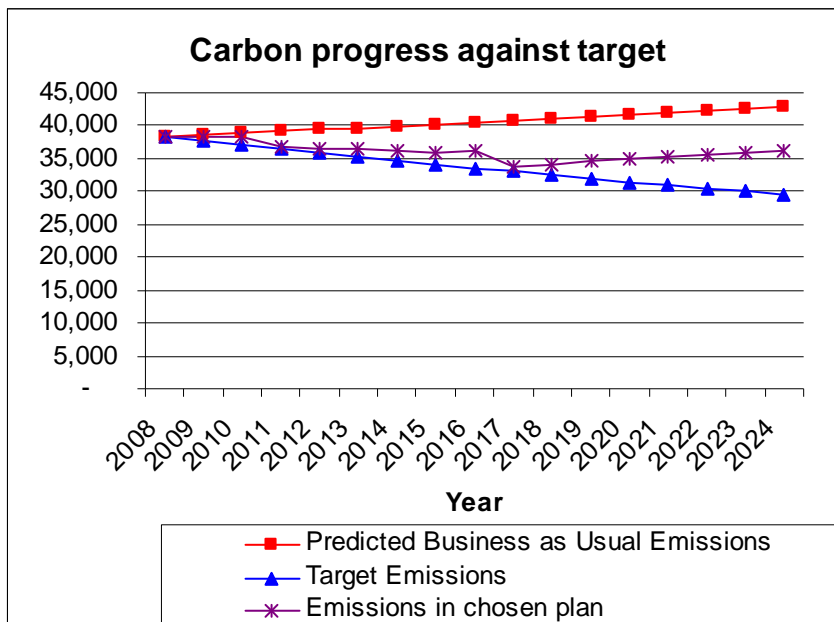


Figure 4-1 Non-housing projection of impact of projects on meeting carbon target

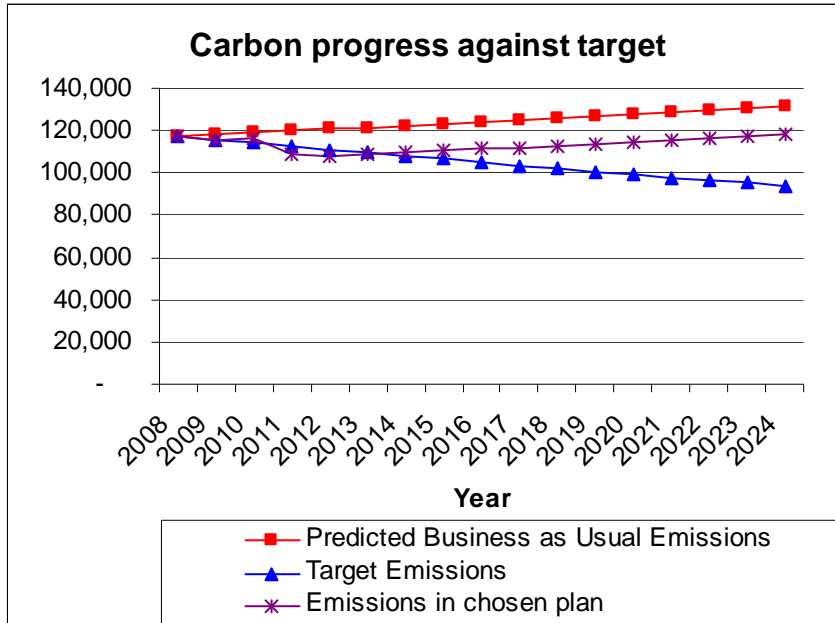


Figure 4-2 Housing projection of impact of projects on meeting carbon target

5 Carbon Management Plan Financing

Wandsworth Council has a long established aim to reduce energy consumption and costs. An Energy Management Team was established in 1979. Since then resources have been available for the implementation of energy efficiency schemes and where appropriate, the Team's expertise has been utilised to ensure capital projects are energy efficient within the Council's value for money policy.

The non-housing projects identified in this programme amount to over £123 million up to the end of financial year 2014/15 and £314 million by 2017. This includes the programme of £300 million on Building Schools for the Future. Whilst not all schemes will produce financial savings it is anticipated that they will all contribute to achieving the Council's commitment to CO₂ savings of 10% by 2014/15 and 20% by 2024/25.

The cost of the schemes will be met from either the Council's capital programme or revenue maintenance budgets, both supported by government grants where possible or the Energy Management Fund resourced 50% from Salix and 50% from other Council resources. Where financing is met from the Energy Management Fund repayments are made back to the fund over the pay-back period enabling resources to be re-invested in further energy efficiency schemes. The non-housing project list includes pipeline schemes amounting to £191 million which are subject to quantification and Council approval.

The Housing projects total £9.1 million and will be met from government grant and the Housing Revenue Account.

5.1 Assumptions

The following assumptions have been made in collating the information provided in the plan:

1. That capital funding is available for the projected schemes in future years and where relevant government grant is approved.
2. The capital costs are quoted at current prices.
3. The Building Schools for the Future (BSF) resources of £300million will remain at the current projected level.
4. Equipment installed will continue to work efficiently producing continuous carbon savings for the quoted life of the project.
5. The annual cost savings quoted in the tables below are based on calculations provided by the Carbon Trust which have a starting electricity price of 9.5 pence per kWh and 3 pence per kWh for gas. These rates are then inflated.

5.2 Benefits / savings – quantified and un-quantified

Quantified Benefits

The Non-housing projects listed in the Plan will produce CO₂ savings totalling 3,887 tonnes resulting from a capital outlay of £122 million up to 2014/15. The Council has a target of achieving 10% saving on CO₂ emissions by 2014/15 and the table below shows that the identified projects would achieve this target. However it should be noted that some of the schemes are not approved and may not materialise. The following table also shows the financial savings resulting from these projects in real terms assuming price increases on energy.

Non-housing Projects

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
Annual cost saving	£50,514	£116,461	£260,136	£303,208	£303,172	£433,038
Annual CO ₂ saving	294.17	684.41	2397.63	3036.04	3054.77	3887.02
% of 2014/15 target achieved	8.1%	18.8%	65.8%	83.3%	83.8%	106.6%

Housing Projects

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
Annual cost saving	£126,245	£125,025	£577,645	£678,516	£671,960	£665,467
Annual CO ₂ saving	2356.13	2356.13	10919.61	12913.01	12913.01	12913.01
% of 2014/15 target achieved	64.6%	64.6%	300%	354.3%	354.3%	354.3%

Un-quantified Benefits

- The Council is seen to be a leader in the reduction of CO₂ emissions.
- Raising awareness amongst staff of the effects of Climate Change and the need to save energy.
- Comply with the requirements of National Indicator 185 (Reduction in Local Authority CO₂ emissions) which could result in additional grant to the Council.
- Ensures the Council maintains its' commitment to environmental and sustainability issues.
- Reducing the CO₂ emissions will reduce the cost to the Council under the CRC scheme.

5.3 Additional resources

The Council's Energy Management Team and existing officers within departments who are members of the LACM Team or Board will implement and monitor projects. One of the proposed projects is for a Schools Carbon Reduction Officer who would be responsible for ensuring schools provide the required information in order that future projects can be implemented to make the financial savings sufficient to cover the cost of the post. Another project is to install AMRs which could result in additional resources being required to analyse the readings but again it is anticipated that savings would be achieved to recover the costs incurred.

5.4 Financial costs and sources of funding

There are three sources of funding for the schemes contained in the projects list:

- Capital Programme - These schemes are met from the existing approved programme, BSF resources and possible future capital bids.
- Revenue Maintenance - Energy efficient equipment and materials are installed during the programme of routine maintenance.
- Energy Management Fund - This Fund has been created with Salix grant which has been matched by the Council. The use of this Fund requires that the cost of the project is repaid to the Fund over the payback period thereby replenishing the Fund for future projects.

The following table analyses by department the cost of the projects identified up to 2014/15 which are classified as completed or in approved programmes.

Funding Source by Department	Pre	2009/10	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
	2009/10	£'000	£'000	£'000	£'000	£'000	£'000	£'000
<u>Approved Capital Programme</u>								
- Children's Services	2,758	1,270	2,038	659	110	-	-	-
- Admin. Buildings	150	555	81	400	-	-	-	-
- Leisure & Amenity Services	996	826	-	-	-	-	-	-
- Technical Services	-	104	104	103	103	-	-	-
- Housing	906	240	8,000					
Total Approved Capital Programme	4,810	2,995	10,223	1,162	213	-	-	-
<u>Schemes not in Approved Capital Programme</u>								
- Building Schools for the Future	-	-	-	30,000	37,000	35,000	10,000	
<u>Revenue Resources</u>								
- Admin. Buildings & IT	130	63	49	-	-	-	-	-
- Technical Services	-	-	2	-	-	-	-	-
- Leisure & Amenity Services	15	15	-	-	-	-	-	-
TOTAL	4,955	3,073	10,274	31,162	37,213	35,000	10,000	

In addition to the Salix resources of £100,000 added to the Energy Management Fund over the last four years the Council has or is expected to receive government grant of £300 million to fund the BSF schemes, £8 million grant from the Homes & Communities Agency and grants from the Carbon Trust for the installation of the solar panels on housing estates.



The Council's 30 year Housing Revenue Account Business Plan informs strategic housing decisions and includes estimates of all expenditure and income relating to the Council's housing stock. The plan currently includes over £130 million of capital expenditure anticipated to contribute to reducing the Council's carbon emissions by roof renewal (£33m), window renewal (£29m) and heating renewal and refurbishment (£75m).

6 Actions to Embed Carbon Management in Wandsworth Council

To ensure the effective implementation and success of the carbon management programme, energy efficiency and carbon emissions reduction should be embedded across every area of the council. The key areas where this be visible are outlined below.

6.1 Corporate Strategy – embedding CO₂ saving across the council

The council is committed at the highest level to reducing CO₂ emissions and this is demonstrated by one of the council's Corporate Strategic Objectives being:

Making Wandsworth an attractive, safe, sustainable and healthy place

Reduce the use of natural resources, reduce CO₂ emissions, and plan for adaptation to climate change. This objective is also stated clearly in the Council's Corporate Business Plan. Amongst the council's topline performance indicators, carbon reduction also features prominently.

6.2 Programme Management

This factor of embedding carbon management is covered in section seven of this plan.

6.3 Responsibility

A council wide staff awareness programme has been identified as a project that can contribute significantly towards carbon reduction across the council. A staff awareness programme is currently in development.

6.4 Data Management

The progress of the projects that have been identified will be updated quarterly. Data collection for NI 185, CRC, Carbon Trust Standard and the carbon management programme will be aligned and collected annually. The Energy Management Team and Corporate Policy Unit will jointly complete this exercise.

6.5 Communication and Training

The successes of the carbon management programme will be communicated both to staff through the council's intranets and to borough residents through Brightside magazine.

6.6 Finance and Investment

The financial aspects of embedding carbon management have been covered in section five of this plan.

6.7 Policy Alignment

Work is underway to ensure that all CO₂ emissions reduction work is aligned.

6.8 Engagement of Schools

Schools have been identified as a key strategic theme of the plan. Significant progress has been made by several schools across the borough. It is intended that this work will be built on over the coming year. The first step will be to pilot AMRs in three of the council's schools.

6.9 Engagement of Suppliers

Over the last year a sustainable procurement policy has been introduced. It is envisaged that this could form the basis of further projects to be identified and implemented in the future.

7 Programme Management of the Carbon Management Programme

Programme Management of the Carbon Management Programme has been key to developing a carbon management plan and identifying projects which will deliver a reduction in the council's carbon emissions. At the start of the programme a Carbon Management Programme Board and Team were established. Throughout the 10 month programme the Board met bi-monthly and the team met monthly.

The Board has provided senior, strategic ownership of the programme and will now take ownership of the carbon reduction target. The Board has also enabled the diverse set of projects from across the council to be brought together in one place. Establishing a Team has meant that project owners can come together and share ideas and ensure that there is coherence and co-ordination of carbon reduction activity.

7.1 The Carbon Management Board (CMB) – strategic ownership and oversight

Moving forward, the CMB will meet quarterly. In 2010, the CMB will meet in June, September and December.

The CMB will continue to be chaired by the Director of Technical Services. Each department will continue to be represented.

At each meeting the CMB will:

- Review progress of all projects – possibly using traffic light status of red, amber or green, allowing the Board to focus on issues that have been encountered.

7.2 The Carbon Management Team (CMT) – delivering the projects

Moving forward, the CMT will also meet quarterly. In 2010, the CMT will meet in June, September and December.

The CMT will continue to be chaired by the Project Lead (Corporate Policy Unit) and Deputy Project Lead (Energy Management Team).

At each meeting the CMT will:

- Report back on the progress of projects they are responsible for; and,
- Highlight any new projects they are aware of.

7.3 Succession planning for key roles

To ensure the success of the programme it is important that all current positions within both the CMB and CMT continue to be represented.

7.4 Ongoing stakeholder management

The Council is continually engaged with partners and stakeholders across the borough. Having developed a successful CMP for the Council's own operations, further work will be done to look at the borough wide carbon emissions and how these can also be reduced.

7.5 Annual progress review

In January 2011 the Carbon Trust will formally review the progress that has been made by the council. The review will:

- Cover the financial and carbon emissions reductions that have been achieved.
- Identify the less quantifiable benefits, such as influencing the local community and contributing to NI 186.



- Align with Council topline, NI 185, CRC and Carbon Trust Standard reporting.
- Report to Environment and Leisure Overview & Scrutiny Committee via the Programme Board.

Appendix 1.

Project List as at 15th April 2010

Project Categories

A: Projects that have already been completed or that are already funded and approved.

B: Projects that have been quantified in detail, but are not yet approved or committed to.

C: Projects that are currently only estimates and/or not currently feasible.

1.1 Housing 'A' Projects

Ref	A, B or C	Project	Lead	Cost	Annual Financial Saving	Annual CO2 Saving	% Contribution toward target	Predicted year of first saving
53	A	Housing (assume half already done) - Cavity Wall Insulation	Ron Marsh	£8,000,000	£437,566	8093.7 tCO2	34.41%	2011
58	A	Three Estates communal to individual heating	Ron Marsh		£110,667	1993.4 tCO2	8.47%	2012
60	A	Housing - Carbon Emissions Reduction Target (CERT) e.g AEC	Ron Marsh	£1,000,000	£127,202	2352.9 tCO2	10.00%	2009
62	A	Washington Court - Solar panels	Ron Marsh	£19,406	£274	3.3 tCO2	0.01%	2009
63	A	Haven Lodge - Solar panels	Ron Marsh	£16,941	£237	2.8 tCO2	0.01%	2010
65	A	Nursery Close OAP - Solar panels	Ron Marsh	£23,147	£357	4.3 tCO2	0.02%	2011

1.2 Housing 'B' Projects

Ref	A, B or C	Project	Lead	Cost	Annual Financial Saving	Annual CO2 Saving	% Contribution toward target	Predicted year of first saving
61	B	Housing - CESP scheme - bid currently being prepared for innovative schemes.	Ron Marsh	£2,000,000	£29,318	465.6 tCO2	1.98%	2011

1.3 Non-housing 'A' Projects

Ref	A, B or C	Project	Lead	Cost	Annual Financial Saving	Annual CO2 Saving	% Contribution toward target	Predicted year of first saving
1	A	Alderbrook Primary School - Roof	David Main	£684,000				2011

Ref	A, B or C	Project	Lead	Cost	Annual Financial Saving	Annual CO2 Saving	% Contribution toward target	Predicted year of first saving
6	A	Printer rationalisation	Allison Newby-Bowes	£0	£276	1.6 tCO2	0.02%	2009
7	A	Falconbrook Primary School - Replace boilers	David Main	£111,000	£3,792	23.4 tCO2	0.27%	2010
8	A	Alderbrook Primary School - Replacement Windows	David Main	£522,000	£1,188	7.3 tCO2	0.08%	2011
9	A	Broadwater Primary School - Windows	David Main	£264,000	£1,808	11.1 tCO2	0.13%	2012
10	A	Eardley Primary School - Replacement windows	David Main	£295,000	£1,598	9.9 tCO2	0.11%	2013
11	A	Honeywell Primary School - Replacement windows	David Main	£467,000	£1,440	8.9 tCO2	0.10%	2013
12	A	Hotham Primary School - Replacement windows	David Main	£486,000	£987	6.1 tCO2	0.07%	2011
13	A	Ravenstone Primary School - Replacement windows	David Main	£271,000	£1,292	8. tCO2	0.09%	2012
14	A	Riversdale Primary School - Replacement windows	David Main	£237,000	£1,199	7.4 tCO2	0.08%	2011
15	A	Selincourt Primary School - Replacement windows	David Main	£258,000	£1,509	9.3 tCO2	0.11%	2012
16	A	West Hill Primary School - Replacement windows	David Main	£212,000	£1,358	8.4 tCO2	0.10%	2011
17	A	Wix Primary School - Replacement windows	David Main	£110,000	£1,767	10.9 tCO2	0.12%	2012
18	A	Battersea Library - Roof renewal and repairs	Dave Brown	£261,000	£1,040	6.4 tCO2	0.07%	2010
19	A	Welbeck House - Rewire	John Dutton	£404,000	£1,183	6.7 tCO2	0.08%	2010
21	A	Valve covers @ 4 leisure centres	Dave Brown	£16,200	£3,930	24.2 tCO2	0.28%	2009
22	A	Old Town Hall - New Roof	John Dutton	£555,000	£1,204	7.4 tCO2	0.08%	2011
23	A	Variable Speed Drives - Balham	Dave Brown	£9,000	£7,380	41.7 tCO2	0.47%	2011
24	A	Variable Speed Drives - Tooting	Dave Brown	£20,000	£6,413	36.2 tCO2	0.41%	2011
25	A	Variable Speed Drives - Putney	Dave Brown	£34,000	£8,013	45.3 tCO2	0.51%	2011

Ref	A, B or C	Project	Lead	Cost	Annual Financial Saving	Annual CO2 Saving	% Contribution toward target	Predicted year of first saving
26	A	Alvering Library Decommissioning	Dave Brown	£0	£13,093	74. tCO2	0.84%	2011
28	A	Liquid pool cover @ 3 LC's	Dave Brown	£16,500	£29,475	176.9 tCO2	2.01%	2012
30	A	New Condensing Boilers - Fairfield Annex	John Dutton	£50,000	£1,800	11.1 tCO2	0.13%	2011
31	A	Point of use water heaters - Fairfield Annex	John Dutton	£7,000	£156	1. tCO2	0.01%	2011
32	A	Trend BEMS - 90 Putney Bridge Rd	John Dutton	£15,000	£3,121	17.6 tCO2	0.20%	2010
33	A	Trend BEMS - Welbeck House	John Dutton	£5,000	£650	4. tCO2	0.05%	2009
34	A	No kettles - 90 Putney Bridge Road	John Dutton	£21,000	£312	1.8 tCO2	0.02%	2009
35	A	New hand driers as part of WC refurb - Old Town Hall	John Dutton	£5,000	£1,072	6.1 tCO2	0.07%	2010
36	A	New hand driers as part of WC refurb - New Town Hall	John Dutton	£22,000	£1,072	6.1 tCO2	0.07%	2010
37	A	Server rationalisation	Allison Newby-Bowes	£70,000	£12,027	68. tCO2	0.77%	2009
38	A	PC to thin client	Allison Newby-Bowes	£50,000	£20,444	115.6 tCO2	1.31%	2009
39	A	Eardley Primary School - Rewire	David Main	£490,000	£2,407	13.6 tCO2	0.15%	2009
40	A	Ronald Ross Primary School - new Heating Services	David Main	£266,000	£1,783	11. tCO2	0.12%	2009
41	A	Chesterton Primary School - Roof renewal and Nursery	David Main	£1,992,000	£1,798	11.1 tCO2	0.13%	2009
42	A	Falconbrook Primary School - Replacement windows	David Main	£170,000	£1,795	11.1 tCO2	0.13%	2010
43	A	Welbeck House - Roof renewal	John Dutton	£150,000	£1,296	8. tCO2	0.09%	2009
44	A	Streetlighting - Installation of Electronic Ballasts	Steve Kempster	£414,000	£28,450	160.8 tCO2	1.83%	2010
45	A	Wandsworth Town Centre Library - Refurbished	Dave Brown	£1,531,000	£0	. tCO2	0.00%	2009
46	A	Tooting Library - Trend Management	Dave Brown	£15,000	£539	3.1 tCO2	0.04%	2010

Ref	A, B or C	Project	Lead	Cost	Annual Financial Saving	Annual CO2 Saving	% Contribution toward target	Predicted year of first saving
47	A	Wandsworth Town Library - Trend Management	Dave Brown	£15,000	£890	5.2 tCO2	0.06%	2009
48	A	Liquid pool cover @ Balham	Dave Brown	£1,500	£4,034	23.6 tCO2	0.27%	2009
50	A	Trend BEMS - 17/27	John Dutton	£5,000	£900	5.5 tCO2	0.06%	2016
60	A	Tooting Library - Zoned lighting	Dave Brown	£15,000	£143	.8 tCO2	0.01%	2010
61	A	Wandsworth Town Library - Zoned lighting	Dave Brown	£15,000	£279	1.6 tCO2	0.02%	2012
66	A	Burntwood and Southfields	Peter Black	£77,000,000	£0	. tCO2	0.00%	2013
67	A	Old Town Hall Lighting Controls	John Dutton	£1,130	£565	3.2 tCO2	0.04%	2009
68	A	Reed House Lighting Controls	John Dutton	£1,460	£595	3.4 tCO2	0.04%	2009
83	A	Inner Park Road Building Work	Alan Green	£77,000	£3,043	18.6 tCO2	0.21%	2011
92	A	BSF - New Catholic School	Peter Black	£35,000,000	£59,882	357.8 tCO2	4.06%	2015

1.4 Non-housing 'B' Projects

Ref	A, B or C	Project	Lead	Cost	Annual Financial Saving	Annual CO2 Saving	% Contribution toward target	Predicted year of first saving
29	B	Schools Carbon Reduction Officer	David Main / Peter Black	£0	£9,501	410.7 tCO2	4.66%	2012
49	B	BSF All Secondary (excluding Burntwood and Southfields and new Catholic School, including special schools)	Sarah Cornforth	£188,000,000	£120,036	714.4 tCO2	8.11%	2017
51	B	New Town Hall - New Roof	John Dutton	£155,000	£1,758	10.8 tCO2	0.12%	2014
52	B	Balham Library - Zoned lighting	Dave Brown	£15,000	£234	1.3 tCO2	0.02%	2012
53	B	Battersea Library - Zoned lighting	Dave Brown	£15,000	£340	1.9 tCO2	0.02%	2012
54	B	Battersea Park Library - Zoned lighting	Dave Brown	£15,000	£193	1.1 tCO2	0.01%	2012

Ref	A, B or C	Project	Lead	Cost	Annual Financial Saving	Annual CO2 Saving	% Contribution toward target	Predicted year of first saving
55	B	Earlsfield library - Zoned lighting	Dave Brown	£15,000	£96	.5 tCO2	0.01%	2012
56	B	Northcote Library - Zoned lighting	Dave Brown	£15,000	£98	.6 tCO2	0.01%	2012
57	B	Putney Library - Zoned lighting	Dave Brown	£15,000	£338	1.9 tCO2	0.02%	2012
58	B	Roehampton Library - Zoned lighting	Dave Brown	£15,000	£118	.7 tCO2	0.01%	2012
59	B	Southfields Library - Zoned lighting	Dave Brown	£15,000	£210	1.2 tCO2	0.01%	2012
62	B	York Gardens Library & community centre - Zoned lighting	Dave Brown	£15,000	£132	.7 tCO2	0.01%	2012
63	B	Automatic Meter Reading	Dion D'Silva	£0	£100,585	1433.5 tCO2	16.28%	2011
69	B	Staff awareness campaign	Nigel Powlson	£0	£25,531	148.2 tCO2	1.68%	2010
70	B	Staff travel plan	Andy Flood	£1,000				2011
77	B	Future driver training for further 100 drivers	Ricky Cousins	£1,500	£653	1.5 tCO2	0.02%	2011

1.5 Non-housing 'C' projects

Ref	A, B or C	Project	Lead	Cost	Annual Financial Saving	Annual CO2 Saving	% Contribution toward target	Predicted year of first saving
2	C	Professional Centre - Rewire	David Main					2009
3	C	10 Falcon Grove - Rewire, Emergency Lighting and Fire Alarm	Alan Green	Bills not paid by Council. Not in base year				2011
4	C	32 York Road - Boiler Plant renewal	Alan Green	Bills not paid by Council. Not in base year				2009
5	C	Town Hall - replacement of Air Conditioning Unit	John Dutton	no effect - increased load				
20	C	Trial of 3 electric hybrid add on units to Mercedes Sprinters diesel engines	Ricky Cousins	£3,000	£20	. tCO2	0.00%	2010

Ref	A, B or C	Project	Lead	Cost	Annual Financial Saving	Annual CO2 Saving	% Contribution toward target	Predicted year of first saving
27	C	Trial of 'Ecolog' in 10 vehicles	Ricky Cousins	£3,000	£65	.1 tCO2	0.00%	2010
64	C	BEMS in all primary schools	David Main / Peter Black	£600,000	£139,003	821.4 tCO2	9.33%	2014
65	C	Tooting Bec Lido - Solar Panels on Changing Room Roof	Dave Brown		£2,661	15.1 tCO2	0.17%	2011
71	C	Driver training - 24 drivers	Ricky Cousins	£360	£157	.4 tCO2	0.00%	2010
72	C	Additional RAP tool Offices		£356,562	£31,013	179. tCO2	2.03%	2017
73	C	Additional RAP tool Primary Schools		£986,588	£165,923	985.4 tCO2	11.19%	2017
74	C	Additional RAP tool Secondary Schools		£747,922	£335,746	2011. tCO2	22.84%	2017
75	C	Additional RAP tool Leisure		£380,796	£100,244	611.6 tCO2	6.95%	2017
76	C	Diesel exhaust gas workshop testing kit.		£3,000	£0	. tCO2	0.00%	2011
82	C	Oil monitoring in fleet vehicles	Ricky Cousins					2011
84	C	Reduction of Grey Fleet Mileage	Graham Bridge					2012
85	C	St George's Hospital and Tooting Leisure Centre shared CHP	Dave Brown					
95	C	Nine Elms Decentralised Energy Project	Rhian Williams					