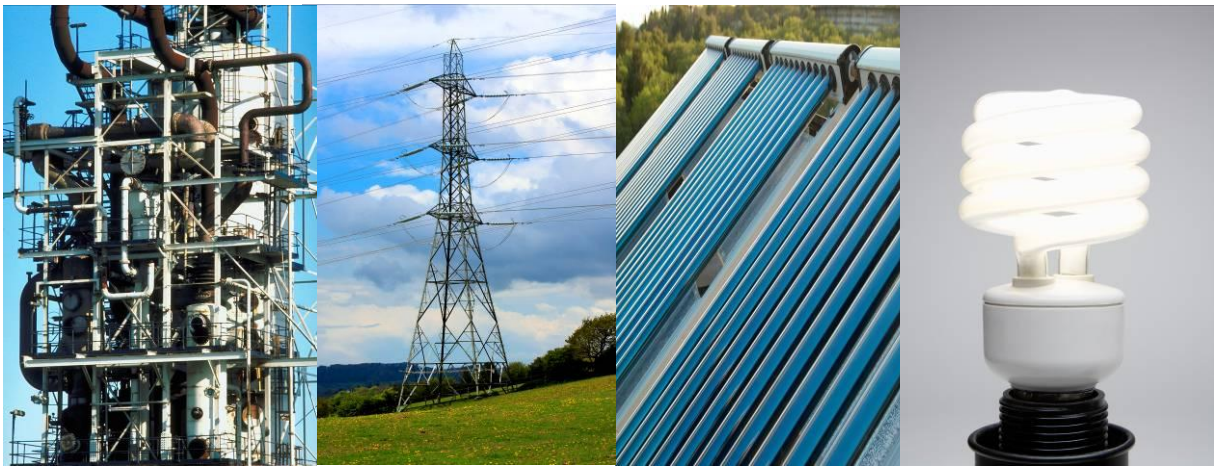
working with

Cheshire East Council
Carbon Management Programme

Carbon Management Plan (CMP)



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Foreword

Cheshire East Council made an early commitment to reducing its climate change impact by signing up to the Nottingham Declaration in 2008/9. As the third largest unitary authority in the North West (and one of the newest), we have a responsibility to work with partners to secure a sustainable future for those who live and work in the borough and for those who visit it. That future depends on our reducing CO_2 emissions, by putting in place measures to sustain long term reductions in energy use, and by creating the conditions for moving Cheshire East towards a low carbon future.

Tackling climate change is a priority in our Corporate Plan 2010-2013. It is also a key aim of our Sustainable Community Strategy, “Ambition for All”, which recognises the role the whole community can play.

This Carbon Management Plan is our first step in moving the organisation towards a lower emission authority. By 2016 we will have demonstrated our commitment through implementing practical actions putting our own house in order, with energy conservation and efficiency measures reducing energy costs and saving money, improving the sustainability of our operations and significantly reducing our climate change impact. We are doing this not only because energy efficiency is financially crucial at a time of volatile energy prices, but because climate change is already having an impact on the services that we provide. By reducing our CO_2 emissions we can make a positive contribution, not only in helping us to adapt to climate change, but by reducing the risks associated with a changing climate.

Erika Wenzel
Chief Executive

Cllr Rod Menlove
Cabinet Member for the Environment

Foreword from the Carbon Trust

Cutting carbon emissions as part of the fight against climate change should be a key priority for all public sector organisations. Carbon management is about realising efficiency savings, transparency, accountability and leading by example. The UK government has identified the public sector as key to delivering carbon reduction across the UK in line with its Climate Change Act commitments and the Local Authority Carbon Management Programme is designed in response to this. It helps organisations to save money on wasted energy and put it to better use in other areas, while making a positive contribution to the environment by lowering carbon emissions.

Cheshire East Council partnered with the Carbon Trust on this programme in 2010 to realise the substantial carbon and cost savings. This Carbon Management Plan commits the Council to a target of reducing CO_2 by 25% by 2016 and underpins potential financial savings and cost avoidance to the organisation of around £13.2 million by that date.

Public sector organisations can contribute significantly to reducing CO_2 emissions and improving efficiency. The Carbon Trust is therefore very proud to support Cheshire East Council in their on-going implementation of carbon management.

Richard Rugg
Head of Public Sector, Carbon Trust

Management Summary

This document is a statement of Cheshire East Council's commitment to reducing its carbon emissions. It forms part of our sharing with our partners and the community the extent to which the Council has already reduced its CO_2 emissions. Since coming into existence on 1 April 2009, we have invested £475,000 in energy saving measures and technologies in our buildings which have reduced CO_2 emissions by over 1220 tonnes per year, and saved over £200,000 per year in energy costs.

Much more needs to be done, not just in reducing emissions and energy costs, but to ensure that carbon reduction is embedded across all of the activities and policies of the Council. While the strategy contains a programme for implementation over the next 5 years this is clearly only a starting point. There is no doubt that climate change is caused by increased CO_2 emissions, and this represents a significant controllable cost.

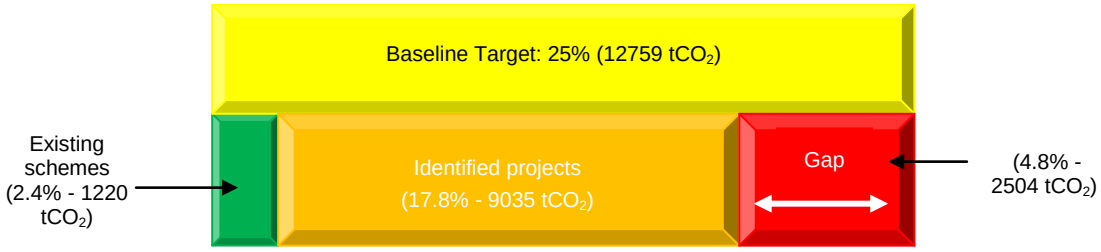
By 2016 Cheshire East Council will be a low carbon council. This means that carbon reduction will be an integral factor in decisions about how we deliver our services, and in our work with partners to secure a sustainable future for those who live, work and take leisure in the Borough. By 2016 we will have demonstrated our commitment through implementing practical actions putting our own house in order, with energy conservation and efficiency measures reducing energy costs, improving the sustainability of our operations and significantly reducing our climate change impact.

In 2008/09 Cheshire East Council was responsible for the emission of 51,037 tonnes of CO_2 costing the organisation £9.9 million

Cheshire East Council will therefore reduce the CO_2 emissions from it's activities by 25% from the 2008/09 baseline, by March 2016

Not achieving this target could cost a cumulative £13.2 million by 2015/16

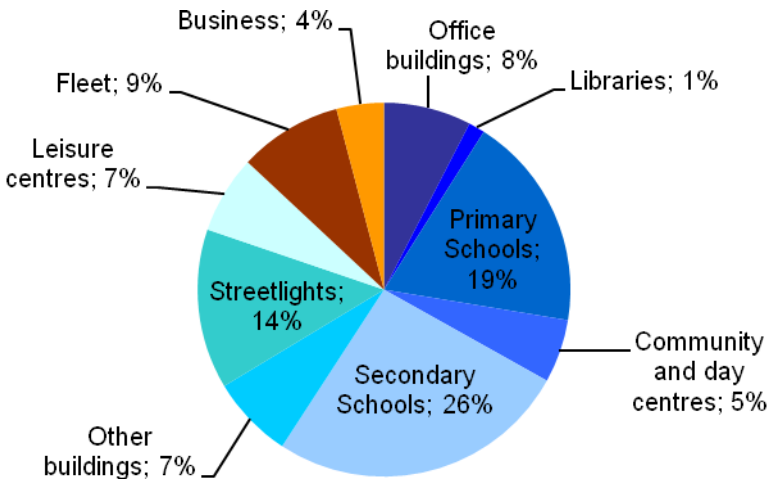
We have identified projects that will reduce our emissions by 81% of our baseline carbon footprint. Additional projects will also be identified during the project period. Some of the projects are small scale energy efficiency measures in buildings. Others involve programmes of behavioural change affecting all staff, from simple housekeeping to strategies to reduce business travel. As can be seen below, based on our emissions from 2008/9 we are still some way short of our target – we need to identify additional projects with a combined saving of 2504 tonnes per year. Further carbon saving projects may be required to counter currently unidentified increases in our carbon footprint.



To achieve this level of reduction we have identified a range of projects with a combined cost of £3.9m over 5 years. The financial payback of implementing these projects in reduced energy costs is lest than 2 years, with a projected cumulative cost saving/cost avoidance of £13.2m over five years. In summary, there are 55 projects identified of which 48 are approved and underway to the value of £866,000 mainly from a Corporate Invest-to-Save fund (44 projects costing £816,000). Two further projects have approval and funding identified, value £2.15m. The remaining 5 schemes are currently not yet approved and have no funding stream.

Category	No.	Value	Carbon saving	% of target
Projects under way	48	£866,000	5559 tonnes	44
Additional approved and funded projects	2	£2,150,000	3475 tonnes	27
Unfunded projects	5	£940,000	1221 tonnes	10
Total	55	£3,956,000	10255 tonnes	81

Where do our emissions come from? The graph below shows that schools contribute the greatest proportion of the Council's annual CO_2 emissions, followed by Street lighting. A significant effort is therefore needed in awareness raising, housekeeping and selected technical solutions to reduce our energy use, lower bills and CO_2 emissions.



Annual progress review

The Council acknowledges that a plan is only as good as its management and its delivery. While progress is regularly monitored, a full scale review will take place each April. This review will cover our CO_2 savings against targets collectively and individually for each project and closely monitor the financial investment and savings too. The outcome of the review will be reported to Cabinet.

1. Introduction

Cheshire East Council is committed to playing its part in reducing its climate change impact. This document sets out the way in which we will achieve this. It explains the steps we have put in place to measure our carbon emissions accurately. It also identifies a range of projects which are either being been implemented or are planned for delivery over the next 5 years. It also sets out how those projects are being funded and explains how our commitment to reducing emissions is being demonstrated across the authority, as part of everything we do.

We have developed this plan with the Carbon Trust using a 5 step process described below. The plan was approved by the Carbon Trust on 18 February 2011 and by Cabinet on 14 March 2011.

We have been working towards a range of carbon saving projects and working with the Carbon Trust has helped to draw these plans together. The work we have done to date will enable us to make progress on reducing our impact on the environment in three key areas, which are:

- the management of our own Estates and Operations
- service delivery; and
- the extent to which the Council can be a community leader in minimising the effects of climate change.

The publication of this document is part of our sharing with our partners and the community the extent to which the Council has already reduced is CO_2 emissions. Since coming into existence on 1 April 2009, we have invested £475,000 in energy saving measures and technologies in its buildings. These projects have reduced CO_2 emissions by over 1200 tonnes per year, and saved over £200,000 per year in energy costs.

"Some of our businesses use more energy than others, but our strategy everywhere is the same. First reduce our use of energy as much as possible. Then, switch to renewable sources of power where it makes economic sense. And, over time, as a last resort, offset the emissions we can't avoid."

Rupert Murdoch

2. Our Carbon Management Strategy

Our Carbon Management Vision

By 2016 Cheshire East Council will be a low carbon council.

Carbon reduction will be an integral factor in decisions about how we deliver our services, and in our work with partners to secure a sustainable future for those who live, work and take leisure in the Borough. By 2016 we will have demonstrated our commitment through implementing practical actions putting our own house in order, with energy conservation and efficiency measures reducing energy costs, improving the sustainability of our operations and significantly reducing our climate change impact.

Cheshire East Council will reduce the CO_2 emissions from it's activities by 25% from the 2008/09 baseline, by March 2016.

Context and drivers for Carbon Management

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 long term goal to reduce CO_2 emissions by 80% by 2050 stated in the *Climate Change Act 2008.*

While still a Shadow Authority, Cheshire East Council signed the Nottingham Declaration. This commits us to working with central government to contribute, at a local level, to the delivery of the UK Climate Change Programme, the Kyoto Protocol and targets for carbon dioxide reduction. To do this we need to participate in local and regional networks for support, and develop plans with our partners and local communities to progressively address the causes and the impacts of climate change, according to our local priorities, securing maximum benefit for our communities. We also need to publicly declare, within appropriate plans and strategies, **the commitment to achieve a significant reduction of greenhouse gas emissions from our own operations**, especially energy sourcing and use, travel and transport, waste production and disposal and the purchasing of goods and services. We need to assess the risk associated with climate change and the implications for our services and our communities of climate change impacts and adapt accordingly. This Carbon Management Plan and associated actions in developing a Climate Change Adaptation Strategy go a considerable way towards meeting those obligations.

Measures to increase **energy efficiency will reduce energy costs**, which is essential given the predicted increases in energy prices. The volatility of energy prices requires the Council to manage the risk of future price increases and put in place measures to reduce the effects. We recognise the need to set an example and gain a reputation as a 'low carbon council'.

The current context for reducing CO_2 emissions is set out in **National Indicator (NI)185**, and this NI underpins the baseline emissions for this plan. While the Government is reviewing indicators and performance targets there will be some form of performance measure for climate change. Even if there were not, it is essential for the implementation of this plan that the Council adopts a clear measure of its CO_2 emissions to understand where those emissions come from, to target energy reduction projects to best financial effect, to ensure projects are delivering required benefits and to report on progress.

The Carbon Reduction Commitment (CRC) places a duty on many public and private sector organisations to measure CO_2 emissions, report on them, and to take action to reduce them. The qualifying date for the CRC was 31 December 2008, and since the Council did not exist at that time we were precluded from registering for Phase 1 which commenced on 1 April 2010. We acknowledge the need to register and participate in future phases, however, and the Government has recently consulted on proposals to start phase 2 from 2013. This will be a major driver behind the achievement of the plan and in meeting our CO_2 reduction target. On current estimates **the Council's liabilities under the CRC Energy Efficiency Scheme would amount to approximately £520,000**, based on a cost of £12 per tonne of qualifying emissions. However, the Government has recently announced changes to the operation of the CRC Energy Efficiency Scheme. The cost to participate is now an annual **charge,** and we will need to pay this from 2013 onwards. While the current cost is £12 per tonne there is every likelihood that this will increase in future. Consequently, there is an imperative for us to reduce our carbon emissions in order to reduce that charge as much as is practically possible.

Finally, **this plan is consistent with the Council's Corporate Plan 2010-13**, where tackling the effects of climate change is part of Corporate Objective 4: to enhance the Cheshire East environment. This objective is set in the knowledge that there is much to be done to improve energy efficiency, encouraging the use of renewable technologies where appropriate, and reducing car use.

Renewable technologies have their place as part of a carbon reduction hierarchy

Strategic themes

Cheshire East Council will achieve the vision and target by:

- delivering **cost savings** from carbon reduction activities in our office buildings, our schools, on transport and street lighting

- **integrating and embedding** carbon management into the Council's high level policies and strategies and its business planning process

- developing a portfolio of **carbon reduction projects** which will combine quick wins, high impact CO_2 savings with a blend of enabling strategies, alignment of policies and savings from rationalisation

- **reducing the demand** for energy to increase the overall effectiveness of energy management

- **inspiring staff and members** to help the implementation of the carbon management actions and initiatives and by contributing to the delivery of actions and initiatives across the wider community

- leading the community on climate change by demonstrating leadership in reducing carbon dioxide emissions resulting from the Council's operations, as set out in NI186 (reducing per capita CO2 emissions in the local authority area).

- developing a strategy to achieve **schools engagement** through support for efficiencies, awareness raising and enhancing aspects of the curriculum in order to achieve significant savings.

Pupils from Calveley Primary School near Tarporley presented their energy case study at the launch of the Junior Energy Monitor scheme.

It is important for us to know where we currently stand as an organisation and how well we are embedding these aims throughout the Council. The level of embedding has been assessed using the Carbon Trust's Carbon Management Embedding Matrix (Appendix A). Our assessment of our current level is set out in Section 6 below.

3. Emissions Baseline and Projections

In 2008/09 Cheshire East Council was responsible for the emission of 51,037 tonnes of CO_2 with energy costs to the organisation of £9.9 million

The scope of this plan

This baseline includes 4 main elements of the scope of NI 185, including:

- Council owned buildings energy use (including schools)
- Street lighting energy consumption
- Council owned fleet fuel use
- Council owned business travel.

Over the next 2-3 years the Council will move towards a single waste collection and disposal contract that will allow for carbon benefits arising from reducing internal waste to be captured. The CO_2 benefit of reducing water consumption is assumed to be marginal and therefore will not contribute significantly to reducing the overall CO_2 emissions of the Council. Note that there are two separate aspects to Council employees commuting. Normal day to day commuting will be reduced as part of a review of staff travel. However, many staff incur excess travel mileage or costs as a result of Local Government Reorganisation. These costs are included in the Transport emissions and will have a full effect for the duration of the project.

To achieve a complete record of the carbon emissions from all of the Council's functions it will be our aim to identify additional emissions where possible in the following areas:

- Building energy use, fleet fuel use and business travel for any outsourced council functions
- Council employees commuting
- Waste produced by council buildings and operations (a new waste collection contract will be in place in 2011), and
- Water used in council buildings and operations, subject to a metering programme.

While the authority does have significant outsourced function in highways and transportation there is no information available on their emissions during the baseline year.

Baseline

The baseline year chosen for this Carbon Management Programme is 2008/09, the data being drawn from the NI185 return for that year.

Table 3.1 – Summary table of emissions and energy costs for baseline year 2008/9

	CO_2 (tonnes)	%	Cost (£)
Buildings and street lights	43,375	87%	£6,837,855
Transport	6,662	13%	£3,091,968
Total	**51,037**	**100%**	**£9,929,823**

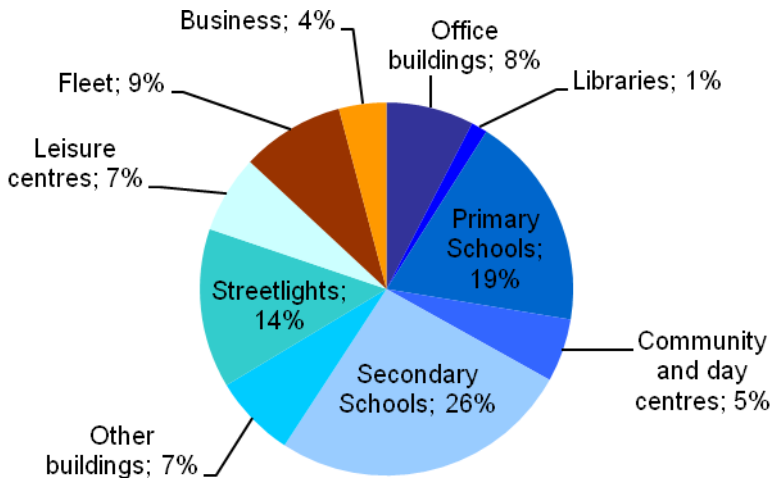
The summary figures are broken down in a little more detail below.

Table 3.2 – CO_2 emissions by category

Category		t CO_2 2008/9	%
Buildings and Street Lights	Office buildings	3,868	8%
	Libraries	722	1%
	Primary Schools	9,502	19%
	Community and day centres	2,799	5%
	Secondary Schools	13,325	26%
	Other buildings	3,665	7%
	Streetlights	7,053	14%
	Leisure centres	3,439	7%
Transport	Fleet	4,563	9%
	Business	2,099	4%
		51,037	**100%**

It can be seen from Table 3.2 and Graph 1 that schools contribute the greatest proportion of the Council's annual CO_2 emissions, followed by street lighting. A significant effort is therefore needed in awareness raising, housekeeping and selected technical solutions to reduce our energy use, lower bills and CO_2 emissions.

Graph 1: CO_2 emissions by category in 2008/9



Display Energy Certificates

Display Energy Certificates (DECs) and an accompanying report are required for buildings occupied by local authorities (including schools) which have a floor area of over 1000 m^2. DECs show the relative energy performance of those buildings. This is based on the annual energy consumption and the CO_2 emissions that are the result of that energy use. Each building is rated with a number (a typical score being 100). The numbers are then mapped to a letter rating from A to G, where an A-rated building would indicate the lowest emissions and G the worst.

The aim behind DECs is to promote the improvement in the energy performance of each building as required by European Directive 2002/91/EC. The availability on site of a DEC certificate (as required by the regulations) is a public statement on the energy performance of the building. Cheshire East Council is responsible for 120 buildings for which DEC scores are required, the majority of which are schools.

Rating	Number of DECs
A	0
B	2
C	5
D	63
E	36
F	10
G	4

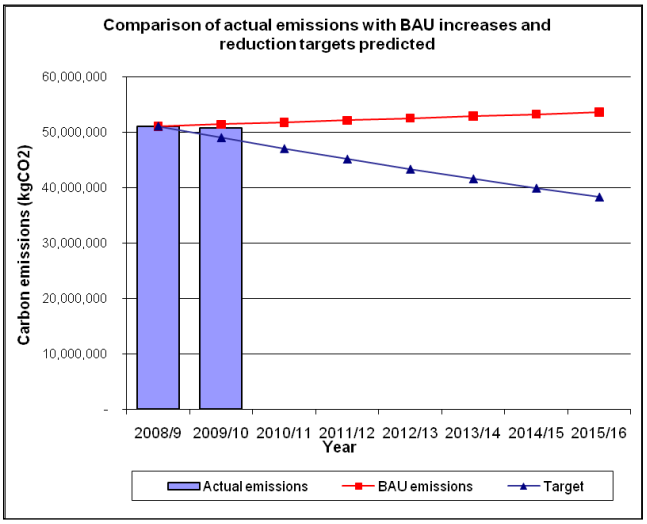
Their distribution across the ratings A-G is shown here. This reflects the age and condition of the legacy of buildings inherited when the new authority was set up in April 2009. The challenge will be to target those buildings for which the DEC ratings are relatively poor, by assessing the extent to which their fabric can be improved, by identifying any appropriate energy saving measures, and by highlighting changes in the use of those buildings or behaviours that will reduce their energy use.

Projections and Value at Stake

In 2008/9 Cheshire East Council was responsible for the emission of 51,037 tonnes of CO_2 costing the organisation £9.9 million.

Not taking action could cost a cumulative £13.2 million by 2015/16.

Graph 2: Emissions and reduction targets



Since the baseline year our CO_2 emissions have only marginally reduced. There are several reasons for this, including additional staff travel as a result of local government reorganisation, and intensification of use of buildings as staff relocate from offices in the West to buildings in Cheshire East. Additional projects need to be identified and implemented in order to ensure we make a bigger impact on emissions and energy costs over the lifetime of the plan.

Or, to explain this another way, if we take no action to reduce our energy bills and CO_2 emissions (that is, assume a "business as usual" attitude), our emissions will increase each year as shown below.

Carbon emissions in tonnes

	2009	2010	2011	1012	2013	2014	2015
Annual	2412	4744	6999	9181	11292	13335	15313
Cumulative	2412	7157	14156	23337	34628	47963	63277

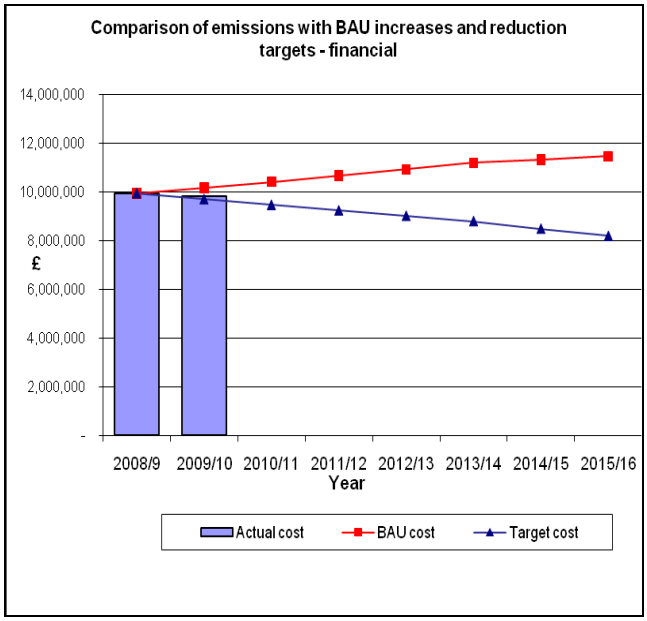
So by not putting in place projects to reduce our CO_2 emissions, between the baseline year and the end of 2015/16 we will have emitted an **additional** 63,000 tonnes into the atmosphere, over and above the current 50,000 tonnes per year.

"If you think mitigated climate change is expensive, try unmitigated climate change."

Dr Richard Gammon

Graph 3 below shows the financial value at stake assuming the target reduction of 25% over 5 years is achieved.

Graph 3: Financial Value at Stake



The annual increase in the financial burden is even more stark, since by taking no action the cumulative additional cost of energy for the Council since 2008/9 is over £13m, as shown below. This does not include the cost of projects intended to help achieve the target. In summary, any action we take now to reduce our CO2 emissions helps us to **avoid** these added costs. Also, the cumulative cost of not taking action – the "business as usual" scenario – would be £13.2m. This is a **potential saving in energy costs** that we can make by implementing the energy saving projects in the plan.

Financial value at stake							
	2009	**2010**	**2011**	**1012**	**2013**	**2014**	**2015**
Annual	£477,306	£954,692	£1,432,436	£1,910,813	£2,390,098	£2,837,526	£3,275,966
Cumulative	£477,306	£1,431,998	£2,864,434	£4,775,247	£7,165,345	£10,002,870	£13,278,836

Below: Councillor Rod Menlove and Colin Farrelly, our Energy Manager, inspecting new boiler controls in one of the Council's office buildings, an invest to save project carried out in 2010.

4. Carbon Management Projects

Since the start of the baseline year the Council has implemented several initiatives in buildings which collectively are saving over 1220 tonnes of CO_2 and £200,000 each year in energy costs. We have also identified further potential savings amounting to 9100 tonnes and over £2.1m per year.

Existing projects

The projects below have all been implemented during or since the baseline 2008/9. Note that these are mainly "quick wins", the benefit of which will be felt annually going forward. They have also helped identify additional projects which will yield similar benefits in future years. They are the result of an early Invest to Save programme worth £75,000 in 2009/10 and an additional £400,000 in 2010/11.

Project	Lead	Capital cost	Annual Savings (yr 1)		Pay back (yrs)	% of target	Start date
			Financial (Gross)	t CO_2			
Macclesfield Town Hall - voltage optimisation	Colin Farrelly	£26,878	£13,917	84	1.9	0.66	2009
Macclesfield Town Hall - 1st floor lighting controls	Colin Farrelly	£17,688	£10,000	60	1.8	0.47	2009
Macclesfield Town - boiler controls	Colin Farrelly	£5,481	£2,000	12	2.7	0.10	2009
Macclesfield Town - boiler controls addition	Colin Farrelly	£1,400	£450	3	3.1	0.02	2009
Delamere House - heating pipework insulation	Colin Farrelly	£4,000	£2,335	14	1.7	0.11	2009
Dalton House - meeting room light switches	Colin Farrelly	£1,120	£396	2	2.8	0.02	2009
Congleton Leisure Centre -sports hall lighting controls	Colin Farrelly	£1,809	£1,499	9	1.2	0.07	2009
Macclesifield Leisure Centre - various areas lighting	Colin Farrelly	£3,772	£1,535	9	2.5	0.07	2009
Wilmslow Leisure Centre - various lighting controls	Colin Farrelly	£3,626	£1,605	10	2.3	0.08	2009
Macclesfield Leisure Centre - Voltage optimisation	Colin Farrelly	£26,997	£13,917	84	1.9	0.66	2010
Wilmslow Leisure Centre - voltage optimisation	Colin Farrelly	£14,876	£6,424	39	2.3	0.30	2010
Municipal Building – data centre survey/amendments	Colin Farrelly	£2,350	£6,129	37	04	0.29	2011
Crewe Pool – pipe insulation	Colin Farrelly	£2,200	£2,340	14	0.9	0.11	2011
Poynton Leisure Centre – lighting controls	Colin Farrelly	£1,177	£936	6	1.3	0.04	2011
Pyms Lane - voltage optimisation	Colin Farrelly	£16,566	£4,012	24	4.1	0.19	2010

Macclesfield Town Hall - 2nd floor lighting controls	Colin Farrelly	£8,900	£3,600	22	2.5	0.17	2010
Shavington Leisure Centre - sports hall lighting controls	Colin Farrelly	£1,548	£998	6	1.6	0.05	2010
Holmes Chapel Leisure Centre - lighting controls	Colin Farrelly	£4,259	£2,068	13	2.1	0.10	2010
Alsager Leisure Centre - varous lighting controls	Colin Farrelly	£4,044	£1,585	10	2.6	0.08	2010
Nantwich Pool - burner controls	Colin Farrelly	£3,000	£6,823	42	0.4	0.33	2010
Crewe Pool - burner controls	Colin Farrelly	£3,000	£4,356	27	0.7	0.21	2010
Macclesfield Town Hall refurbishment scheme	Colin Farrelly	£8,000	£4,680	28	1.7	0.22	2010
Congleton Leisure Centre - pool cover	Colin Farrelly	£15,984	£8,571	53	1.9	0.41	2010
Congleton Leisure Centre - AHU controls	Colin Farrelly	£8,977	£2,914	18	3.1	0.14	2010
Delamere House - boiler controls	Colin Farrelly	£5,769	£4,075	25	1.4	0.20	2010
Middlewich Library - lighting and controls	Colin Farrelly	£2,000	£544	3	3.7	0.03	2010
Nantwich Civic Centre - loft insulation	Colin Farrelly	£6,179	£618	4	10.0	0.03	2010
Westfields Offices - a/c units linked to light controls	Colin Farrelly	£18,674	£4,797	29	3.9	0.23	2010
Poynton Leisure Centre - pool cover	Colin Farrelly	£10,142	£3,381	21	3.0	0.16	2010
Macclesfield Town Hall - ground floor corridor lights	Colin Farrelly	£20,519	£6,193	37	3.3	0.29	2010
Knutsford Leisure Centre - sports hall lighting controls	Colin Farrelly	£4,095	£2,745	17	1.5	0.13	2011
Shavington Leisure Centre - fan controls	Colin Farrelly	£365	£82	0	4.5	0.00	2011
Shavington Leisure Centre - store room lights	Colin Farrelly	£446	£100	1	4.5	0.00	2011
Nantwich pool - pipe insulation	Colin Farrelly	£4,244	£2,096	13	2.0	0.10	2011
Municipal Building Crewe - lighting controls	Colin Farrelly	£5,400	£3,744	23	1.4	0.18	2011
Alsager Leisure Centre - fitness suite controls	Colin Farrelly	£400	£875	5	0.5	0.04	2011
Sandbach Leisure Centre - light and heater controls	Colin Farrelly	£1,420	£370	2	3.8	0.02	2011
Congleton Leisure Centre - voltage optimisation	Colin Farrelly	£12,165	£5,134	31	2.4	0.24	2011
Crewe Pool cover	Colin Farrelly	£7,405	£437	3	17.0	0.02	2011
Poynton Leisure Centre - pool temperature controls	Colin Farrelly	£903	£4,670	28	0.2	0.22	2011
Variable speed drives	Colin Farrelly	£7,070	£6,289	38	1.1	0.30	2011
I2S projects package - completion of I2S 2010/11	Colin Farrelly	£200,000	£45,000	272	4.4	2.13	2011

Planned/funded projects

The projects below are either fully funded from the current Invest to Save programme and to be implemented over the next two years, or are longer term strategic projects aimed at behavioural change which are funded from existing budgets.

Project	Lead	Capital cost	Financial savings (gross)	t CO_2 savings (year 1)	Pay back (yrs)	% of target	Start date
Adopt new car lease scheme	Amanda Rudham	£10,000	£22,787	49.9	0.4	0.40	2011
Review of staff travel rates and heirarchy	Amanda Rudham	£10,000	£139,662	300.5	0.1	2.39	2011
Fleet review	Phil Sherratt	£286,000	£246,704	557.7	1.2	4.44	2010
Waste and Recycling: CO_2 reduction from diverting recyclable materials from landfill	Ray Skipp	£1.250,000	£234,000	894.0	5.3	7.12	2011
Good Housekeeping strategy: personal responsibility (assumed 10 per cent reduction)	Amanda Rudham	£20,000	£25,000	136	0.8	1.08	2011
School engagement and awareness	Michael Harris/Michele Burrow	£10,000	£528,000	3206.9	0.0	25.13	2011
Green ICT Strategy	Carl Horton Leigh	£900,000	£54,000	327	16.7	2.56	2011
Illuminated Traffic Signs - selected switching off based on 400 units per year	Neil Heller	£30,000	£27,000	163	1.1	1.28	2011
Street Lighting - Dimming of main road lights based on 600 units per year	Neil Heller	£450,000	£63,000	381	7.1	2.99	2011
Street Lighting – selective reduced lighting hours in residential areas based on converting 3, 000 units per year	Neil Heller	£350,000	£225,000	1360	1.6	10.66	2011

Street lighting accounts for 14 per cent of the Council's energy bill, costing tax payers over £1.5m each year. By taking action to reduce lamp wattages, and by selectively switching off lamps in some areas, we can reduce the cost considerably. A detailed trial is under way.

"The impact street lights have on carbon emissions and indeed energy consumption cannot be ignored. This trial will help us, as an authority, to look at new ways we can make substantial carbon emission reductions in the future – for the benefit of the Cheshire East environment."

Cllr Rod Menlove

Medium to long term projects

The projects described below are likely to yield carbon savings within the 5 year programme. However, the figures are only estimates.

Project	Lead	Capital cost	Annual Savings (yr 1)		Pay back (yrs)	% of target	Start date
			Financial (Gross)	t CO_2			
Property rationalisation - assumed savings in electricity and natural gas	Andrew Voss	£100,000	£250,000	1521	0.4	11.92	2011
Property rationalisation - assumed savings in burning oil	Andrew Voss	£10,000	£6,000	49	1.7	0.39	2011

Additional projects are continually being sought that will reduce carbon emissions and/or reduce the Council's energy bill. As these are quantified they will be included in the project lists and their benefits included and reported to the Cabinet. These include:

Sustainable Procurement

Currently two new contracts, one for electricity supply and the other for Highways Maintenance, are being assessed prior to a decision. The contract for Electricity supply will ensure continued monitoring of consumption and facilitate actions to reduce the carbon emissions. The Highways Maintenance contract has the potential to reduce the mileage of the Service vehicles as well as rationalising the deployment of operatives from centralised depots. Further savings are possible from the new procurement strategy and a streamlined management process.

Looking forward contractual arrangements will ensure that travel reductions and other energy saving measures will be reported against decreasing annual targets. Further work is required to rationalise the Procurement Strategy as we try to integrate the systems previously operated in the former authorities.

Adult, Community, Health and Wellbeing Directorate

The directorate is currently in consultation about potential changes to the provision of transport to service users. The council currently offers a fleet of transport vehicles that have been in place since the 1980s. In line with most other authorities we will be offering an alternative level of service that will still enable vulnerable people to travel.

The directorate will also utilise the Flexible and Mobile working arrangements offered by the Council to rationalise the accommodation requirements and reduce travel. The Directorate has also produced a reduction target for the number of business miles.

ICT

We are currently implementing a number of software improvements that will benefit the customer and reduce paper requirements. In addition there will be a saving in terms of paper file storage and the need to travel to access archived records.

Organisational design

As a new local authority, Cheshire East Council is particularly vulnerable to budget pressures and anticipates reductions in staffing and activities. Over the course of the next few years non-school staffing is expected to reduce. The carbon reduction benefit of reduced staffing will be quantified and included as a carbon management project.

Strategic Asset Management

The merging of county and district Councils has brought together a large property portfolio. The Corporate Asset Management Plan (2011-2014) demonstrates the Council's commitment to continue to develop towards improvement in the strategic management and use of the new portfolio, using the built estate as a strategic resource and ensuring that the front line Council and other related public services are provided and supported via accessible and well maintained facilities.

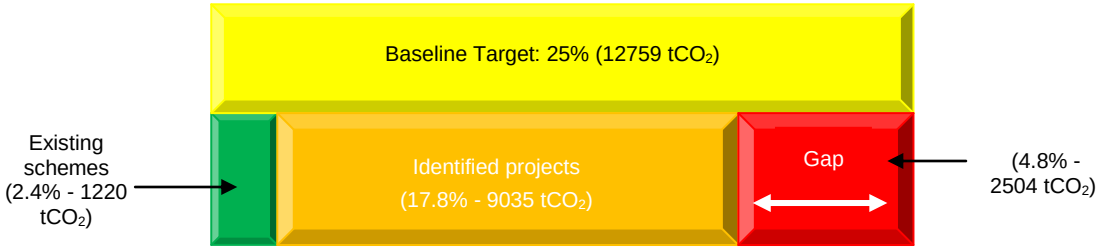
Key priorities through the transformational Asset Challenge include:

- Introduction of a Corporate Landlord Function
- Depots and Wastes Review
- Farms Estate Strategy
- Review of Non-operational estate
- Office Accommodation Strategy
- Devolution & Community Asset Transfer
- Disposals Strategy
- Review of alternative approaches to holding assets
- Carbon Targets, Energy Management & Sustainability

This wholesale review of the portfolio and alignment to evolving new service delivery models is beginning to present opportunities for rationalisation and consolidation. Combined with effective investment within the retained estate, this will over time lead to a much smaller, more energy efficient buildings footprint that supports and enhances flexible working. It will be possible to revise and refine the assumed 12.5 per cent reduction in CO_2 emissions as this work progresses.

We have identified projects that will reduce our emissions by 81% of our baseline carbon footprint. Additional projects will also be identified during the project period. Some of the projects are small scale energy efficiency measures in buildings. Others involve programmes of behavioural change affecting all staff, from simple housekeeping to strategies to reduce business travel. As can be seen below, based on our emissions from 2008/9 we are still some way short of our target – we need to identify additional projects with a combined saving of 2504 tonnes per year. Further

carbon saving projects may be required to counter currently unidentified increases in our carbon footprint.

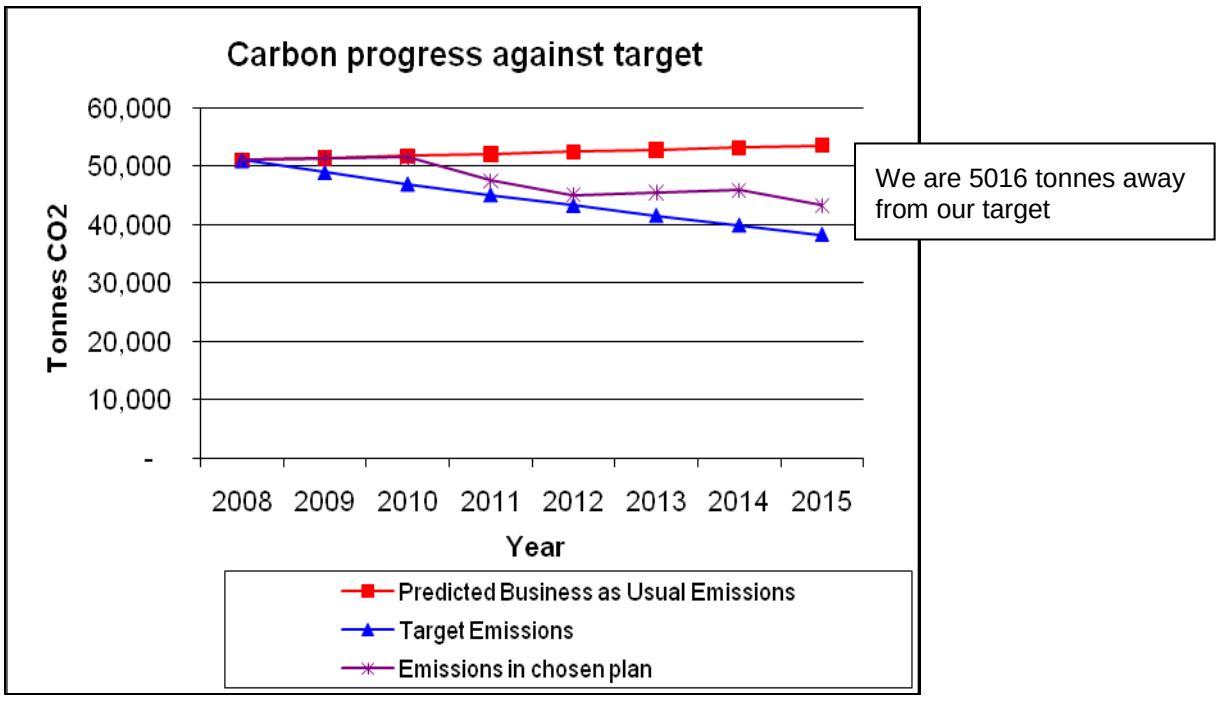


Projected achievement towards target

Assuming all of the projects included in the tables above are implemented within 5 years and estimated benefits are realised, our carbon progress is shown below.

The currently unquantified projects above, and additional projects brought forward, are expected to close the gap over the next 5 years.

Graph 4: Projected carbon reduction progress against target



5. Carbon Management Plan Financing

The projected financial savings from the implementation of the carbon reduction projects depend on the method of calculation of the annual energy saving for each project and assumptions on:

- the price per unit of energy (in pence per kWh)
- an inflation rate of 3.7% (working estimate)
- a financial discount rate of 5%.

Due to the recent increases in energy prices and the uncertainty over future trends, the assumptions of energy prices and the methods to calculate the energy saving of the projects will have the greatest impacts on financial cost savings and the availability of future resources to invest into future projects.

Energy Prices

The assumed energy price and the increases in demand are critical to the values calculated by the financial model. The dramatic increases in fuel prices over recent years have out-stripped the assumed annual increase within the carbon management plan. If energy prices were to increase at this rate in the future the predicted financial savings would increase greatly from the current projections. The follow on effect of this would be a reduction in the payback periods of projects and may make certain projects more viable within budgets.

Cheshire East Energy Contract

The energy market is extremely volatile. Prices can vary significantly on a daily basis with dramatic rises and falls over a 12 month period. Moves of plus or minus 20 per cent in a single month are possible. Such market conditions make it difficult to manage budgets and control cost, therefore increasing the importance of adopting a best practice approach to energy procurement.

The current Cheshire East Electricity and Gas supply agreements are due to expire on 30th June 2011. Both contracts are based on a fixed price model arranged in 2008, resulting in the Council being locked in to fixed prices. To comply with the recommendations of the Office of Government and Commerce (OGC) Pan Government Energy Project (PGEP), a new contract has been arranged from the expiry date of current arrangements so that energy will be purchased through a Central Purchasing Body (CPB). This will help the Council to secure energy prices against future price rises.

Benefits/savings – quantified and un-quantified

The projects identified and valued so far fall short of our target of 25%. We have currently identified 81% of our target reductions by 2015-16. Other projects are currently being reviewed to increase this target.

	2009	2010	2011	2012	2013	2014	2015
Annual cost saving	**£0**	**£33,736**	**£941,227**	**£1,615,159**	**£1,615,159**	**£1,615,159**	**£2,095,909**
Annual CO_2 saving	**0.00**	**204.19**	**4567.69**	**7367.00**	**7367.00**	**7367.00**	**10297.87**
% of target achieved	**0%**	**2%**	**36%**	**58%**	**58%**	**58%**	**81%**

Un-quantified Benefits

In addition to the financial and carbon saving benefits of the programme there are also several other benefits:

- Regulatory compliance – the reduction of energy consumption and therefore carbon emissions will reduce the payment the Council will be required to make through the Carbon Reduction Commitment.
- Community leadership – the Council's commitment to and implementation of the CMP will provide an example to the local community and the private sector which will highlight the importance of action and methods to address the cause of climate change.
- Improved reputation with staff: Climate change is an important social issue - it is evident that employees value an employer's progress to reduce its carbon emissions.
- Early preparation for the Carbon Reduction Commitment, preparing data and knowledge required for compliance with this government initiative.
- Reducing reliance on fossil fuels and improving out energy security.
- Providing a systematic approach to understanding our environmental risks and impacts and developing a pragmatic response.

The projects identified will be implemented and managed by the staff and budgets within each sponsoring department, there will be limited, if any requirement for additional resources and the projects are planned to be serviced by existing departmental budgets.

Financial costs and sources of funding

To achieve a 25 per cent reduction in CO_2 emissions we have identified a range of projects with a combined cost of £3.9m over 5 years. The financial payback of implementing these projects in reduced energy costs is lest than 2 years, with a projected cumulative cost saving/cost avoidance of £13.2m over five years. In summary, there are 55 projects identified of which 48 are approved and underway to the value of £866,000 mainly from a Corporate Invest-to-Save fund (44 projects costing £816,000). Two further projects have approval and funding identified, value

£2.15m. The remaining 5 schemes are currently not yet approved and have no funding stream.

Category	No.	Value	Carbon saving	% of target
Projects under way	48	£866,000	5559 tonnes	44
Additional approved and funded projects	2	£2,150,000	3475 tonnes	27
Unfunded projects	5	£940,000	1221 tonnes	10
Total	55	£3,956,000	10255 tonnes	81

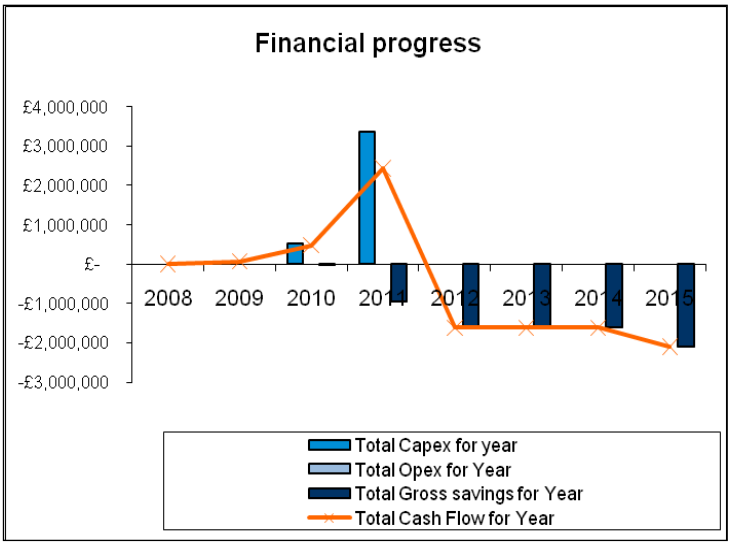
Funding is still being sought for the remainder of the schemes. Consideration is being given to the potential of Salix funding, subject to their being salix-compliant and if resources are available and can be secured. Otherwise, these and other future projects will be funded from internal Invest-to-Save monies, identified to resource such projects across the organisation. Other projects which represent good value for money and appropriate pay back periods may be supported from the Council's general Capital budget for efficiency measures. We realise that there is a funding gap particularly in the case of the schools project, and the most appropriate funding basis for this future investment is currently being reviewed.

It should also be noted that the funding for some projects, including the waste recycling project and Green ICT Strategy project, is not directly related to CO_2 savings. The funding is to implement projects which are for sound business reasons and to ensure the resilience of the services provided.

Projected Financial Savings

Over the five year programme the projected financial savings from the projects currently quantified are £2.1m, giving an average payback of less than 2 years. The effectiveness of projects to deliver both financial and carbon savings over the period will gradually decline, the Council will however throughout the implementation of this plan continue to seek and implement further energy and carbon saving opportunities.

Graph 5: Planned expenditure and expected savings



All of the projects currently identified in the plan have either been completed or are intended to be implemented from 2011. Additional projects will be identified with start dates between 2011 and the end of the plan period but to date there are no other firm projects in place. The Carbon Management Plan should deliver savings to the Council's bottom line budgets in 2012/13 but this is subject to any further required investment which will mean bottom line savings will be delayed. In the long term it is anticipated that the cost savings will exceed the capital expenditure required to achieve those savings.

6. Actions to Embed Carbon Management

Embedding carbon management across the Council is vital to the success of the Carbon Management Plan and it also delivers one of our key Corporate Objectives. The Corporate Plan 2010-13 has 5 Corporate Objectives, the fourth objective stating:

"We will tackle the effects of climate change through a comprehensive approach to reducing carbon emissions and promoting sustainable approaches. We will develop and deliver a Carbon Management Plan which sets targets for reducing carbon emissions. We will know we have been successful when the Council reduces its carbon emissions and is respected as a leading example across the Borough on climate change issues".

For the plan to be successful it needs to be owned across the Council and be seen as an essential tool. We have used the Carbon Trust's Carbon Management 5 level Embedding Matrix (see Appendix A) to determine our starting point and our assessment of our current level is set out below.

Each element is led by a senior officer whose role is to ensure progress and to report that progress to the Programme Board and to the Council. The Matrix demonstrates that carbon management is not just about technical projects but relates to all Council activity from strategy development, communications and training, responsibility, accountability, monitoring and review, programme management, finance and investment and policy alignment.

Category	***Current Level of 5***	***Target level by date***	***Level by 2014***
Corporate Strategy	3	4 (by March 2012)	5
Programme Management	3	4 (by December 2011)	5
Responsibility	2	4 (by March 2012)	5
Data Management	4	4 (by December 2011)	5
Communications and Training	3	4 (by December 2011)	5
Finance and investment	4	5 (by March 2012)	5
Policy alignment	2	3 (by September 2011)	5
Schools engagement	3	4(by March 2012)	5

Corporate Strategy – embedding CO_2 saving across the organisation

Current self-assessment: Level 3 (the savings target will support the achievement of Corporate Objective 4 in the current Corporate Plan and will be included in its next revision. Level 4 will therefore be achieved by March 2011).

The Carbon Management Plan has been endorsed by Cabinet, other Members of the Council, the Chief Executive and senior officers. The CO_2 savings target has been adopted by the Council and published as part of the plan and on our web site. We have therefore made a clear and public commitment to reducing our emissions and to the scale of investment needed to achieve that target over the next 5 years. Services recognise how the targets of the Carbon Management Plan can be delivered through their activities and managers are required to actively consider the carbon saving benefit of policies and proposals and report those to the Carbon Programme Board.

To ensure that energy reduction and CO_2 saving become part of every day activities, each Service will ensure that the aims of the Carbon Management Plan become embedded in their service plans and are therefore part of everyday planning and delivery. This will reinforce the need to make it part of corporate culture and behaviour.

The Council's **Head of Policy and Performance** leads the service planning process and coordinates production. To help ensure that the Carbon Management Plan's aims are reflected in service plans, initial **guidance for Services on incorporating climate change actions in service plans** has been developed as an integral part of the refresh of service plans for 2011-12. This guidance will be reviewed and refined during the year ready for the next round of service planning in 2012-13.

Programme Management – bringing it all together effectively

Current self-assessment: level 3 (the core team is regularly reviewing progress with the Carbon Management Plan. While progress is routinely reported to Cabinet and to the corporate management team, since no actions have resulted from this reported it would be premature to claim that level 4 had been achieved).

To succeed, the Carbon Management Programme needs to be appropriate, organised, managed and delivered via corporate programme governance standards, hand in hand with strong corporate ownership of the Carbon Management Plan. The Carbon Management Plan was endorsed by the Carbon Programme Board prior to its adoption by Cabinet. Led by **the Senior Sponsor, John Nicholson, Strategic Director, Places**, the Board is an influential group within the Council, including the Member Champion for carbon management, Cllr Rod Menlove, and managers and staff from all key services.

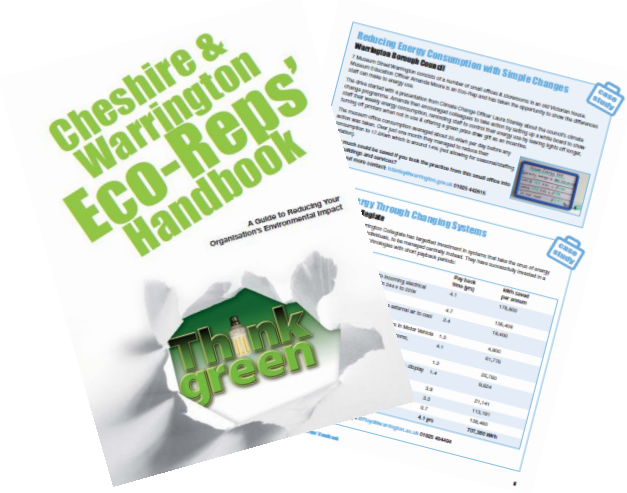
A robust monitoring system has been developed and implemented and reported to the Carbon Programme Board. The Carbon Management Plan and specifically the reduction targets are monitored and scrutinised by the Board to ensure we are progressing and will meet our objectives and reduction targets.

Quarterly progress reports are presented to Corporate Management Team, Departmental Management Teams and to Cabinet, which ensures that the programme is managed effectively and any barriers to progress are removed.

Responsibility – being clear that saving CO_2 is everyone's job

Current self-assessment: level 2 (while some elements of level 4 have been achieved, such as the development of the Eco-reps, as yet no one individual has responsibility for CO_2 reduction and there is insufficient experience of carbon management responsibilities amongst service heads to suggest anything other than level 2).

The **Head of HR and Organisational development** is working to ensure that carbon management responsibilities are included in the job descriptions of service heads and all relevant managers and other staff.



Carbon saving responsibilities are also included in personal development plans (PDP). There is a mandatory objective around continuous improvement in every PDP, and a specific link is made between this and carbon management. This ensures that carbon reduction is embedded across the organisation and that sufficient resources are allocated to it. While elements of levels 3 and 4 are therefore addressed, we feel there is still some progress to be made before we fully achieve level 4 by March 2012.

We have a network of eco-reps who are supported by the Carbon Reduction Team. They help to promote a variety of issues within their service areas, raising awareness and understanding, running competitions and events as well as helping to develop corporate policy on a variety of environmental issues. To support them in their role a Cheshire and Warrington-wide public sector partnership developed and published the Eco-reps handbook which is available to all staff on our website. It is the responsibility of all services to identify and support their local eco-reps.

Data Management – measuring the difference, measuring the benefit

Current self assessment: level 4 (while data collection on emissions and energy use in buildings, street lighting and travel is comprehensive and improving, as yet the data is not centralised or externally validated).

It is vital that our energy consumption data is managed effectively to ensure the Carbon Management Plan is effective and meets all our targets.

The Council actively pursues emissions information on buildings and street lighting and has done so for several years. This not only provides for a more accurate baseline but ensures that progress year on year can be measured and reported. Also, as part of an integrated invest to save programme relating to transport, emissions from all fleet vehicles have been identified. All of this information is collated annually and by updating the Carbon Trust's baseline tool, shows changes in CO_2 emissions year on year. In turn this demonstrates progress against our target of a 25 per cent reduction over 5 years. Where any slippage is evident we will be able to review existing projects to ensure they are achieving their full potential, or if necessary identify new projects.

From staff travel claims data information is available on business mileage. Improvements being made to the corporate integrated business system allows for up to date analysis of changes in business mileage and monthly returns to allow year on year and month by month comparisons. This information is crucial in understanding the success of efforts to reduce business mileage as a key element of our carbon reduction strategy.

Carbon reductions, either overall or on individual projects, are reported to staff through the communications strategy. Also, real time energy use and savings are being displayed in key buildings to make both staff and the public aware of our efforts to reduce our impact on the environment. Projects are also in development to extend that information to individual workstations, and to publicise where possible real time energy and CO_2 information on our web site.

Overall responsibility for improving data management and quality are led by the Council's **Head of Policy and Performance** through the internal audit process**.** This work will include data relevant to the Carbon Management Plan.

Communications and training – ensuring everyone is aware

Current self assessment: Level 3 (while there are programmes of communications and training in place, these are still largely ad hoc and not yet fully formalised).

Led by the Council's **Communications and PR Manager,** awareness about our commitment to a reduction in our CO_2 emissions is a key part of our Communication Strategy. Ongoing training is also important for Members and Staff (see above under "Responsibility").

The Carbon Management Plan has been published on CEntranet and the Councils web pages. With the full support of senior management, the eco reps are raising awareness amongst staff and help implement ideas promoting behavioural change to save energy and reduce our emissions.

An internal communications campaign and marketing material to promote responsible behaviour has been undertaken. This has included:

- Quantified "vital statistics" about the impacts of individual behaviours e.g. the savings associated with turning off standby buttons
- Dedicated material/resources to raise awareness
- Carbon saving incentives/awards
- Technical tips – use of messages, video conferencing, web casts.

An internal communication strategy has been developed to inform and engage all staff. A category in the Aspire4Excellence staff recognition scheme to cover commitment, innovation and support for the Carbon Management Plan is advertised and promoted as a means of recognising and rewarding staff and Teams who contribute to the carbon management agenda.

A staff attitude and perception survey was undertaken in 2010. Two identical surveys were produced. One was an eSurvey sent to those employees who had access to email. The other was a paper copy sent to a sample of employees who did not have access to email. In all 1,685 surveys were completed during July 2010. The response rate for the online survey was between 18%-24% (there are around 3000-4000 email addresses but some are shared). The response rate for the paper survey was 30%.

Headline results

- 91% of respondents agreed with the statement 'the world's climate is changing', just 1% disagreed
- 83% of respondents agreed that they were concerned about climate change
- 76% agreed that they had noticed a change in the UK's climate during their lifetime and 55% agreed that climate change is a result of human activities rather that a natural occurrence

- 50% said climate change would have an impact on them during their lifetime and 88% agreed that climate change would have a significant impact upon the lives of future generations
- 56% of respondents agreed that climate change is beyond our control and it is too late to do anything about it
- Just 7% agreed that they don't believe climate change is happening
- 72% don't believe that the potential impacts of climate change are being exaggerated.
- In doing things at work respondents were most likely to have said they had done as much as they could in 'Reducing electrical use' (75%)
- They were most likely to say they hadn't done anything about 'Making suggestions for the office to be more environmentally friendly' (49%)

The survey results are being used to inform future internal carbon reduction campaigns.

Under the guidance of the **Head of HR and Organisational Development,** we recognise that climate change and the need to reduce CO_2 emissions are so important that they are included in Staff and Member induction programmes. Specific training packages have also been developed to raise awareness amongst key staff and those for whom carbon savings is a specific responsibility.

Finance and Investment – the money to match the commitment

Current self-assessment: level 3 – (an understanding of the importance of carbon reduction to the budget is developing, with an appreciation of the scale of the financial costs of not taking action, as yet there is no formal coordination, no annual carbon reduction budget and no external funding).

We are very aware of the financial impact of doing nothing to reduce our carbon emissions and recognise the need to take action to minimise the financial impact on the Council's budget of increasing energy prices. A range of projects has either been undertaken already (some fully funded from a £450,000 invest to save programme), and further invest to save measures are in the pipeline for year 1 of the 5 year programme. Funding is therefore either in place or identified for most of the projects. Work is ongoing to identify funding streams for the larger projects, especially in relation to street lighting, schools and to property rationalisation, the main benefits of which will be felt in the latter years of the programme.

Policy Alignment – saving CO_2 across our operations

Current self-assessment: level 2 (Climate change and related energy efficiency and resource use are considered in many of the Council's short, medium, and long-term policies and strategies. However, there has been little coordination between these and this carbon management plan provides the opportunity to ensure such policies and strategies are properly aligned).

The aim of the Council is to embed climate change mitigation and adaptation into all policies and procedures. Work is already under way with partners in risk management and business continuity planning to develop adaptation strategies consistent with the principles of NI188, preparing to adapt to climate change.

By April 2012, Cabinet and Corporate Management Team will review all council policies to ensure that climate change and carbon management are fully integrated. This will support the inclusion of measures to address climate change as part of service planning over the next year. This work will be led and coordinated by the **Head of Policy and Performance.**

The review will:

- identify those current policies which have an effect on our carbon emissions and energy usage
- assess the extent to which those are measured, monitored or reported
- Consider opportunities to change those policies to mitigate negative effects
- Identify and remove any policies that conflict with carbon reduction, or at the least carry out a risk assessment where that is not possible for practical or technical reasons
- Ensure that services and teams identify any contributions they can make to reducing our carbon emissions
- Highlight the need to save energy with staff and partners.

There are several policy areas current under review that will have a full effect during the life of the programme. These are:

Procurement policy: a sustainable procurement strategy will be in place by April 2011.

Capital Projects policy: this seeks to ensure that whole-life costs are included within project proposals and funding selection criteria. The extent to which suppliers demonstrate their ability to implement significant carbon reduction is one of the assessment criteria in determining the awarding of a new Highways contract.

Human Resource policy: work is currently under way promoting the use of low carbon options for staff and Member travel, the harmonisation of travel allowances and targeted reduction in business mileage across the Council.

ICT Strategy: A Green ICT strategy is in preparation that will reduce our carbon emissions through a combination of measures including a replacement strategy biased towards energy efficient computer equipment and software.

Project management: carbon impacts are to be included in all project initiation documents from April 2011.

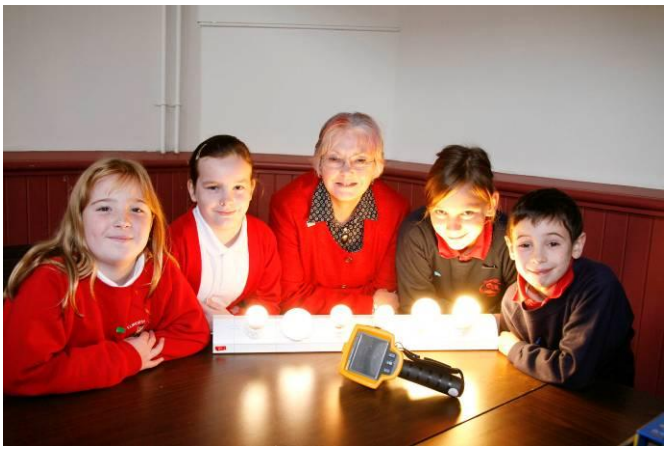
Contractual arrangements: a standard clause on carbon management will be developed for all new contracts, where appropriate, from April 2011.

Finally, in anticipation of policy reviews, all decisions taken by the Cabinet since April 2009 have been made in the light of implications for climate change.

Engagement of Schools – working with Schools to reduce our carbon footprint

Current self-assessment: level 3 (no single person as yet has responsibility for carbon saving in schools. The relatively independent nature of schools means that responsibilities are currently split, although the combination of housekeeping measures and the institution of invest to save programmes for school buildings has provided a clear focus on schools and their responsibility to reduce energy use).

Schools accounted for 45 per cent of the Council's CO_2 emissions in the baseline year 2008/9. It is therefore proposed to engage with schools individually and collectively to reduce that energy use and for schools to appreciate and take their share of the responsibility for it. This is particularly important given the changes being made to the Carbon Reduction Commitment (Energy Efficiency Scheme).



Cllr Lesley Smethan with pupils from Elworth Hall Primary, Sandbach and Hermitage School, Holmes Chapel learning about thermal imaging and low energy light bulbs at the launch of the JEM Scheme in October 2010.

Led by the carbon reduction team and by the **Director of Children and Families Department** there is already in place a programme of engagement with schools through Junior Energy Monitors (JEMs). Supported by an initial capital of £10,000, this is an energy awareness and education campaign for the whole school community, encouraging schools to have better understanding of energy consumption and identify ways in which it can be reduced. It involves the reading of meters locally and communicating information on energy consumption to the whole school, the carrying out of basic energy surveys, the identification of pupil champions (JEMs), whole school assemblies, site manager training and continued support ending in awards to schools

which can demonstrate a significant achievement in energy reduction during the year. Almost 70 primary schools have signed up to the JEM scheme, and plans are in place to extend the scheme to secondary and special schools.

Pupils from The Dingle Primary, Haslington taking part in the 'Ten Easy Ways to Save Energy' activities at the JEM launch

The JEM scheme is part of a wider programme of support for Education for Sustainable Development, a multi-agency partnership across Cheshire and Warrington. This includes encouragement of Eco-Schools scheme, and other sustainable development activities in schools. An annual ESD conference promotes and shares best practice. However, there is a need for dedicated resources to provide direct support to schools in their activities to maintain significant progress. As part of this, training for school bursars on energy and water management has been provided.

Ongoing support is provided for sustainable school clusters, groups of schools within an Education Improvement Partnership (EIP) that can work collectively on sustainable school issues. This includes energy management. Clusters have so far been supported in Middlewich and are currently being explored in Congleton. Further clusters will be set up during the next 5 years.

Finally, a large scale Invest to Save capital investment programme is being developed for schools, using as a model the I2S programme developed for corporate buildings. Taken together, the schools package of measures is intended to achieve a significant reduction of up to 15 per cent in school energy use by 2016.

Working with our suppliers to reduce our carbon footprint

Within the standard contracts issued to suppliers, there are questions relating to sustainability and the environment. Depending upon the level of environmental impact, these questions are often altered to reflect the service/goods to be procured and are evaluated and scored accordingly. Depending upon the level of impact, suppliers are encouraged throughout the contract term to manage their environmental impact and thus be more efficient. Within our Waste team, we are working with local waste collection suppliers and distributors to recycle more of the Council's waste to reduce our landfill tonnage. As each service is very different, there are not any specific standard terms and conditions relating to the reduction of carbon emissions by suppliers. For our corporate travel contract, the supplier does provide us with the CO_2 comparisons for air, road and rail travel, in order for CEC to monitor CO_2 emissions by this supplier.

7. Programme Management of the CM Programme

Strong management is the key to the programme's success. The Council recognises that identifying projects alone is not enough – each must be monitored to ensure it is achieving estimate carbon benefits in a timely way and within budget. Cheshire East Council has a Programme Board which retains an oversight of the whole programme, and a Carbon Management Team which manages existing projects and identifies new opportunities.

The Programme Board – strategic ownership and oversight

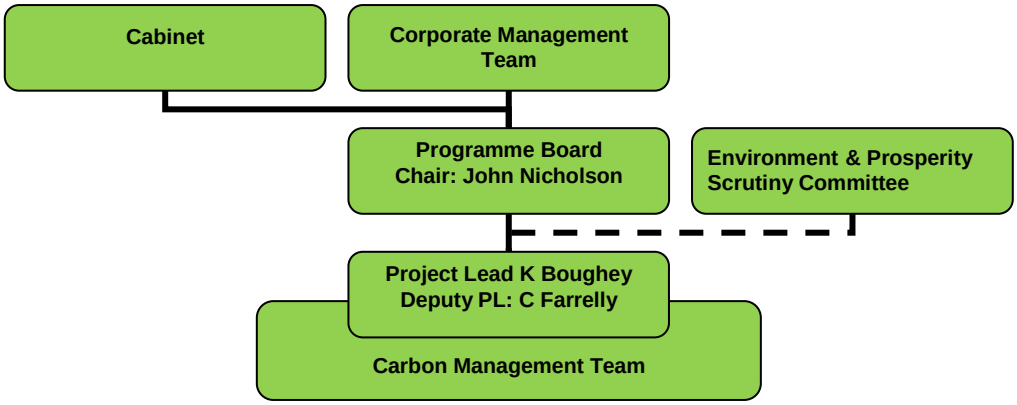
The Programme Board meets every two months to review progress on project development and delivery, and progress against the embedding matrix. The Board principally comprises:

- Chair*: John Nicholson* *Strategic Director, Places*
- *Cllr Rod Menlove* *Environment Portfolio Holder*
- *Lisa Quinn* *Borough Treasurer & Head of Assets*
- *Arthur Pritchard* *Assets Manager*
- *David Wharton* *Procurement Manager*
- *Caroline Simpson* *Head of Regeneration*
- *Lorraine Butcher* *Head of Services for Children & Families*
- *Chris Chapman* *Borough Solicitor*
- *Phil Lloyd* *Director of Adult, Community, Health and Wellbeing.*

Representatives of key services also attend, in particular those with responsibility for delivery projects or those with an oversight of the programme. The role of the Board is to:

- Champion carbon reduction and provide leadership across the organisation
- Set and keep under review the overall strategic direction and targets
- Prioritise carbon reduction projects across the whole scope of the Council's activities and processes
- Ensure carbon reduction is linked with other policies and initiatives
- Monitor progress regularly
- Remove obstacles to project implementation
- Develop proposals for the financial planning of projects.

Its reporting structure is set out overleaf.



The programme board reports quarterly to the Corporate Management Team on progress in implementing the overall programme. Where key decisions are required the Lead Member, Cllr Rod Menlove, ensures that the Cabinet is regularly and properly briefed. This is particularly important in considering projects with capital or policy implications. Where a project has a particular implication for other policy areas then a debate is undertaken with the appropriate scrutiny committee, which in most cases will be Environment and Prosperity Scrutiny.

The Board receives regular reports on the overall project plan progress and is briefed on specific projects. It has an oversight of the Carbon Management Projects Register and reviews the detailed progress on individual schemes. It also provides a strategic lead on issues arising and identifies solutions to emerging problems. In particular, the Programme Board uses the Carbon Management Embedding Matrix to monitor progress.

The Carbon Management Team – delivering the projects

The Carbon Management Team is responsible for developing projects and overseeing their delivery and achievement of carbon reduction targets. Selected members meet every 4-6 weeks to review and update background details, assumptions, costs and deliverability. The Team also oversees efforts to generate additional projects which have a potential carbon saving. The membership is set out overleaf.

Succession planning for key roles

We recognise that the biggest single risk to the success of this programme is in failing to plan for the need to replace the Project Sponsor or Project Leader should the need arise. This is confirmed by experience gained by the Carbon Trust over the first 7 years of the Local Authority Carbon Management Programme. We will do everything we can to minimise the risk of the project being compromised by a change in personnel. Once the embedding process reaches a critical mass and the projects begin to yield their target benefits this will be less of an issue. In the short to medium term however, the Project Sponsor's role is shadowed by Caroline Simpson, Head of Regeneration. The Project Leader role is supported by Rob Elliott, the manager of the Council's Carbon Reduction Team, and the Council's Energy Manager, Colin Farrelly, is the deputy project leader.

Cheshire East Council – Carbon Management Team	
Role	**Name and position in the authority**
Project Leader	*Keith Boughey, Climate Change Officer*
Deputy Project Leader	*Colin Farrelly, Energy Manager*
Carbon Management Team members	*Paul Goodwin, Finance Lead (Places)*
	Samantha Clements, Sustainable Procurement
	Gareth Pawlett, ICT Strategy & Planning
	Richard Bramhall, Communications
	Andrew Voss, Property Strategy
	Mark Hallett, Transport Engineer
	Neil Heller, Street Lighting
	Ralph Kemp, Waste Strategy
	Fintan Bradley, Improvement & Achievement (Schools)
	Julie Davies, H R Strategy Manager
	Keith Pickton, Leisure Facilities
	Jenny Lees, Green Travel Planning
	Dave Upton, Organisational Change Manager
	Steve Williams, Integrated Public Transport
	Amanda Rudham, H R Policy

Ongoing stakeholder management

There are several key individuals across the organisation who, because of the location and ownership of individual carbon management projects, are crucial to their success. These are identified below. While not necessarily directly engaged on the Board or Carbon Management Team, they all have a responsibility to ensure that the projects identified within their areas of responsibility are delivered. Their involvement and background operational knowledge helps to ensure that project leads remain focussed on the task, review progress and identify/solve blockages.

All projects are part of day to day operations and therefore are identified and considered as part of normal management activities. They are also key in helping to identify additional projects for further consideration over the lifetime of the project.

Individual or Group	Influence	Impact	Their interest or issues
Paul Bradshaw	M	M	Business mileage
John Barrett	M	H	ICT provision
Michael Harris	H	H	Schools engagement
Andrew Ross	L	M	Highways & transport policy
Glen Bubb	H	H	Integrated public transport
Paul Griffiths	M	M	Transport policy
Conal Kearney	M	M	Air quality emissions
Guy Kilminster	H	H	Leisure & Libraries
Phil Sherratt	H	H	Highways, waste, streetscape
Peter Hartwell	L	M	Regulatory services & Parking
Adrian Fisher	M	M	LDF, Housing, Building Control
Jo Rozsich	M	M	Communications Strategy
Alastair Bain	L	M	Domestic Energy Savings
Linda Glendenning	M	M	Adult Services

As projects are implemented, further identified and promoted it is expected that additional stakeholders will brought into the overall process, including in some cases suppliers and service delivery partners.

Annual progress review

The Council acknowledges that a plan is only as good as its management and its delivery. While the Programme Board reviews the plan bi-monthly, a full scale review will take place each April. This review will include:

- An assessment of the programme management to date including the performance of the Board and Carbon Management Team
- CO_2 savings against targets collectively and individually for each project
- A report on the unquantified impacts, especially in the community arising from activities in our schools
- A detailed report on the financial scenario project by project and overall, to ensure value for money is being delivered.

The outcome of the review will be reported to the Corporate Management Team and to Cabinet. An interim half-yearly report will also be prepared and submitted in September of each year.

Cheshire East Council working with CARBON TRUST

8. Appendix A: Carbon Management Matrix – self assessment as at March 2011

Aim: to achieve level 5 by April 2014

	CORPORATE STRATEGY	PROGRAMME MANAGEMENT	RESPONSIBILITY	DATA MANAGEMENT	COMMUNICATION & TRAINING	FINANCE & INVESTMENT	POLICY ALIGNMENT *	ENGAGEMENT OF SCHOOLS
Mature 5	· Top level target allocated across organisation · CO_2 reduction targets in Directorate Business Plans · Action plans in place to embed strategy. Progress routinely reviewed	· Cabinet / SMT review progress against targets on quarterly basis · Regular diagnostic reports provided to Directorates · Progress against target published externally	· CM integrated in responsibilities of senior managers · CM part of all contracts / Ts & Cs · Central CO_2 reduction advice available · Green Champions leading local action groups	· Regular collation of CO_2 emissions for all sources · Data externally verified · Monitoring & Targeting in place for: o buildings o street lighting o transport/travel	· All staff given formalised CO_2: o induction and training o communications · Joint CM communications with key partners · Staff awareness tested through surveys	· Finance committed for 2+yrs of Programme · External funding being routinely obtained · Ring-fenced fund for carbon reduction initiatives	· CO_2 friendly operating procedure in place · Central team provide advice and review, when requested · Barriers to CO_2 reduction routinely considered and removed	· A 'whole school approach' including curriculum · Mature programme of engagement in place · CO_2 saving in schools having a wider community impact
4	· CO_2 reduction commitment in Corporate Strategy · Top level targets set for CO_2 reduction · Climate Change Strategy reviewed annually	· Sponsor reviews progress and removes blockages through regular Programme Boards · Progress against targets routinely reported to Senior Mgt Team	· CM integrated in to responsibilities of department heads · Cabinet / SMT regularly updated · Staff engaged though Green Champion network	· Annual collation of CO_2 emissions for: o buildings o street lighting o transport/travel · Data internally reviewed	· All staff given CO_2 reduction: o induction o communications o CM matters ~ communicated to external community	· Co-ordinated financing for CO_2 reduction projects via Programme Board · Funding principles and processes agreed · Finances committed 1year ahead · Some external financing	· Comprehensive review of policies complete · Lower level policies reviewed locally · Unpopular changes being considered	· A clear emphasis on energy / CO_2 reduction in schools · Council activities fully co-ordinated · Broad set of education stakeholders engaged · Funding in place
3	· Vision for CO_2 reduction clearly stated and published · Climate Change Strategy endorsed by Cabinet and publicised with staff	· Core team regularly review CM progress: o actions o profile & targets o new opportunities	· An individual provides full time focus for CO_2 reduction · Key individuals have accountability for carbon reduction · Senior Sponsor actively engaged	· Collation of CO_2 emissions for limited scope i.e. buildings only	· Environmental / energy group(s) given ad hoc: o training o communications	· A view of the cost of CO_2 reduction is developing, but finance remains ad-hoc · Some centralised resource allocated · Finance representation on CM Team	· All high level and some mid level policies reviewed, irregularly · Substantial changes made, showing CO_2 savings	· A person has responsibility for Schools CO_2 reduction · Schools CO_2 reduction projects co-ordinated · Ad-hoc funding
2	· Draft Climate Change Policy · Climate Change references in other strategies	· Ad hoc reviews of CM actions progress	· CO_2 reduction a part-time responsibility of a few department champions	· No CO_2 emissions data compiled · Energy data compiled on a regular basis	· Regular awareness campaigns · Staff given CM information on ad-hoc basis	· Ad hoc financing for CO_2 reduction projects	· Partial review of key high level policies · Some financial quick wins made	· Ad-hoc schools projects to specifically reduce energy / CO_2
1 Start	· No policy · No Climate Change reference	· No CM monitoring	· No recognised CO_2 reduction responsibility	· No CO_2 emissions data compiled · Estimated billing	· No communication or training	· No specific funding for CO_2 reduction projects	· No alignment of policies for CO_2 reduction	· No CO_2 / energy reduction policy for schools

9. Appendix B: Definition of Projects

Project	**Street lighting efficiency programme**
Reference	**CEC 23, 24, 25**
Description & notes	De-illumination of Traffic Signs (23) Dimming of main road lights (24) Reduced street lighting hours (25)
Quantified costs and benefits	Project costs: De-illumination of Traffic Signs = £ 30,000 Dimming of main road lights = £ 450,000 Reduced street lighting hours = £ 350,000 Annual Financial and Carbon savings: De-illumination of Traffic Signs = £ 27,000 163 t CO_2 Dimming of main road lights = £ 63,000 381 t CO_2 Reduced street lighting hours = £ 225,000 1, 360 t CO_2 Payback period and % of target: De-illumination of Traffic Signs = 1.1 years 1.28 % Dimming of main road lights = 7.1 years 2.99 % Reduced street lighting hours = 1.6 years 10.66 %
Resources	The Highways Maintenance team would plan to replace bulbs over the period at a rate dependent upon funding. The measures to affect lighting strengths will be trialled and if successful will be programmed into the team's work programme.
Ownership and accountability	Head of Environmental Services (Phil Sherratt) Project Manager (Andy Buckley) The Street Lighting programme is part of the 'Total Transport Programme' which has an established programme board.
Ensuring success	Risk log with escalation up to the Programme Board Key risks: Political focus and priority Key benefits: Reduce cost and carbon by 30% Business change will be delivered through Programme Coordinator
Performance/ success measures	Financial and Emissions data through project Accountant
Timing	Funding for 2011/12 yet to be secured Deliverables for next 5 years have been completed Short term work programme prepared for Years 1 & 2

Project	**Awareness/ownership of personal responsibility to reduce energy use**
Reference	**CEC 26**
Description & notes	Raise employee awareness of the ways to reduce energy use at home and work. Publish energy usage of facilities and equipment in the workplace. Work with specialist organisations to run road shows to inform staff of benefits and ways of reducing energy use.(e.g. Energy Trust). Set energy targets for teams / buildings, and monitor CO_2 emissions. Add environmental objective to personal objectives for the year. Produce league table of high mileage drivers and provide information to staff on smarter driving – reduce fuels costs and carbon emissions.
Quantified costs and benefits	Annual Financial savings: £ 41,000 Payback period: 0.5 years Co2 Emissions reduction: 250.3 t CO_2 % of target: 1.96 %
Resources	Use of road shows with agencies such as Carbon Trust Use of CEC produced information and free external information to display around workplace detailing energy usage Employee Service Centre to offer support Managers to take responsibility for energy saving in their work areas Carbon Reduction team to support the Eco reps and promote best practice H&S reps to promote safe driving
Ownership and accountability	Team Leaders/Managers to set energy reduction targets Eco reps to co-ordinate road shows and display of information H&S to promote the H&S impacts and benefits ESC - Production and circulation of stats and data and provide suggested "bank" of environmental objectives for managers to select Offsetting carbon and linking to supporting local community – possibility to tie in with work currently being carried out by The Cheshire & Warrington Public Sector Carbon Management Programme.
Ensuring success	Time to be given at team meetings for eco reps to update on key developments / information Risk – ensuring data available to review energy usage
Performance/ success measures	Check Employees awareness and commitment via staff surveys Road shows are well attended Employees raised awareness, i.e. making suggestions for energy saving Eco reps embedded in the organisation and given time at team meetings Grey fleet travel is reduced Buildings energy usage decreases. Providing CO_2 and £ saving All employees achieve an environmental objective for performance year Carbon offsetting benefits local community projects
Timing	Objectives set for performance year 2011/2012 Energy monitored for buildings/teams from April 2011 Process in place to monitor energy usage in buildings by March 2011

Project	**Adapt car lease scheme to encourage eco vehicles**
Reference	**CEC 27**
Description & notes	Green and Tax Efficient Cars (GTECs) salary sacrifice car scheme is likely to replace the existing car lease scheme. Employees can drive discounted cars with income tax and NIC savings provided by the employer. Employee sacrifices pay.
Quantified costs and benefits	Reduced CO_2 emissions - when carrying out work and personal mileage – possibility to save up to 10% - 15% depending on take up of scheme = 193 tonnes of CO_2 NI contribution savings from the employer – approx £150-£600 p. a., per car depending on employee take up and profile of car Average CO_2 emissions under new scheme is 113 CO_2 g/km, current average is 145 CO_2 g/km Based on an estimated take up of 2.5% this would be a saving of 32 CO_2 g/km. Based on a comparable public sector organisation this equates to approx 350 cars/ 32 CO2/ gkm per car. Annual Financial saving: £ 26,016 Payback period: 0.4 years CO_2 Emission reduction: 50.9 t CO_2 % of target: 0.40 %
Resources	Salary sacrifice schemes impact on the following work areas: Legal – Payroll – HR – Procurement - Communications - Pensions Systems / Administration (ESC) All would need to ensure correct policies and procedures are in place and resourced to ensure scheme is run effectively.
Ownership and accountability	Legal – ensure compliance with Consumer Credit Act Payroll – payslip information / impact on pay elements HR Strategy Team – A range of Policies Communications – branding / FAQ / comms Procurement – processes taken on by CEC / insurance Pensions impact.
Ensuring success	Underpinning polices, procedures and administration are robust and well communicated to staff entering into the scheme Communications to staff encourage take up of scheme. Selection of scheme provider approved by legal and procurement.
Performance/ success measures	CEC accepts employer savings of £600 per car/ per annum. CO_2 emissions are reduced from grey fleet mileage. Scheme take up is high amongst employees Scheme allows for effective recording of mileage and CO_2
Timing	Phase 1 – understanding current business travel policies / outlining key steps for successful implementation – Oct/Nov 2010 Phase 2 – Selection of fleet provider – Jan - Feb 2011 Phase 3 - Design of the scheme – March/April 2011 Phase 4 – Implementation and Launch Nov – May – Sept 2011

Project	Review staff travel/improved data collection
Reference	CEC 28
Description & notes	**Review the various mileage rates** i.e. car, public transport, Review thresholds for lower mileage rates Review cc ranking for mileage rates Review passenger mileage rate, bike, public transport rate **Improve data collection of travel information** use of IBS to claim rate of travel expenses and collect mileage and Co2 data. Enterprise (car hire company) to provide carbon information Detailed information for grey fleet journeys/ consider other modes. Joining of Motorvate Programme to improve data collection. **Implement a travel hierarchy** - to encourage use of audio / video conferencing / public / pool transport **Encourage flexible / mobile working** promotion of current policies. E.g. Video Conferencing in majority of CE buildings
Quantified costs and benefits	**Review of Mileage Rates** - save an estimated 447 tonnes of emissions with revised rates. (EST report Aug 2010) **Travel Hierarchy and Support Alone** Travel hierarchy and IT support systems to save 10% in mileage Annual Financial saving: £ 156,974 Payback period: 0.1 years Co2 Emissions reduction: 300.6 t CO_2 % of target: 2.36 %
Resources	Motorvate membership support Employee Service Centre- (use of i-expenses Oracle IBS module) Shared Service Centre – redesigned forms circulated HR strategy team have reviewed cost benefit of mileage options.
Ownership and accountability	HR Strategy team – various reviews of business mileage rates ICT Strategy / Shared Services – Video Conferencing Car hire provider will include CO_2 data on hire records Communications – support roll out of the travel hierarchy HR Strategy – promotion of polices e.g. home / flexible working Change Manager – Motorvate Programme Application
Ensuring success	Teams can utilise data in business decisions to reduce energy use Management use of data in agreed function before full roll out. Implementation and ownership of the travel hierarchy Communications to promote policies and supporting options
Performance/ success measures	Analysis of business mileage data to help monitor CO_2 emissions. Data can be used to set and monitor team / individual targets. Accreditation in Motorvate scheme. Reduction in mileage rate should increase use of alternative methods of transport and/or drive smarter
Timing	Delivery of R12 due Jan 2011 - Mileage rates reviewed Oct. 2010. Motorvate membership application – currently underway. Data can be captured and analysed – April 2011. Office Communications Server – Roll Out April 2011. Video Conferencing Kits installed at 3 offices – August 2010.

Project	Fleet Review
Reference	**CEC 29**
Description & notes	Review of corporate fleet to identify and deliver efficiency savings And carbon reduction. Carbon emission baseline externally verified by the Energy Savings Trust (EST). Carbon reductions will be monitored annually by the EST through the Motorvate accreditation scheme.
Quantified costs and benefits	Total project costs = £1.4 m (over 5 years) Total project cashable efficiency savings = £ 4.3 m (over 5 years) Total net benefits = £ 2.8 m (over 5 years) Payback period = 2 years Total fleet carbon baseline = 4,000 tonnes (including a 25% uplift for vehicles over 3.5 tonnes) Target carbon reduction = 573 tonnes (over 3 years based on the EST Gold standard) Annual Financial saving: £ 283,322 Payback period: 1.0 years Co2 Emissions reduction: 573 t CO_2 % of target: 4.49 %
Resources	Core resources: Project Executive/ Project Manager/ Fleet Manager Virtual project team: HR/ Legal/ Procurement/ ICT/ Assets/ Accountant Chris Williams of the TAS Partnership
Ownership and accountability	Head of Environmental Services (Phil Sherratt) Project Manager (Dave Upton) The Fleet Review project is part of the 'Total Transport Programme' which has an established programme board.
Ensuring success	Risk log with escalation up to the Programme Board Key risks: Political focus and priority Key benefits: Reduce cost and carbon by 20% Invest to Save bid for 2011/12 Business change will be delivered through Strategic Fleet Manager
Performance/ success measures	Financial data through project Accountant Emissions data through the Motorvate scheme (EST) Car mileage data through Oracle reporting
Timing	Funding for 2010/11 secured in September Deliverables for next 5 years have been completed Short term work programme in place for Years 1 & 2 Invest to Save bid being considered

Project	**Waste & Recycling: Household Recycling Scheme Harmonisation**
Reference	**CEC 30**
Description & notes	As part of the review of waste services it is proposed to convert the whole of Cheshire East onto a three bin comingled recycling system. This has the Carbon advantages of facilitating the replacement of an existing depot in Macclesfield and recycling collection vehicles to provide energy and fuel efficiencies. It will also divert waste from landfill / waste to energy to the recycling scheme.
Quantified costs and benefits	• 5% Increase in recycling by diverting 4188 tonnes per annum • £518,621 / annum saving over current collection (including energy savings). Annual Financial savings: £ 234,000 Payback period: 5.3 years Co2 Emissions reduction: 894 t CO_2 % of target: 7.01 %
Resources	The provision of a transfer station for the bulking up of collected recyclate. In the short term through the building of a temporary building and obtaining appropriate permits on the existing sites. The provision of suitable recycling wheeled bin containers to all appropriate households in the North operational area. Accounted for in the cost savings above £1.15 million written off as £115,136 a year over a 10 year period.
Ownership and accountability	Ray Skipp (Waste & Recycling Manager). The depot rationalisation project is a specific strand of work that sits within the Fleet Improvement and Efficiency Programme, headed up by Phil Sherratt (Head of Environmental Services).
Ensuring success	At present an initial feasibility report has been produced. Subject to the Council agreeing to proceed with a more detailed study would be required together with planning, permit and construction of a temporary building on the existing Macclesfield depot site. Existing collection vehicles would also need changing as part of our current leasing arrangements.
Performance/ success measures	Recorded Recycling figures and NI 192 Implementation of a consistent, enhanced comingled recycling scheme across the Northern area of Cheshire East bring it into line with the South area. Introduction of more fuel efficient vehicles.
Timing	2011/12

Project	**Carbon management programme for schools**
Reference	**CEC 42**
Description & notes	The plan is to ensure a coordinated approach to the CMP for schools and requires a high level of take-up from the schools. Typically good housekeeping alone can save 10%. The energy efficiency best practice programme quotes that in primary schools energy 'good practice' can reduce costs from £11.19 - £7.98, a saving of 29%. In secondary schools the increased pupil numbers means increased savings of £4.20 per pupil by good practice. The offer to schools would be access to a specialist consultant, for a limited time period, eg three years. The consultant will liaise with the school and facilitate some or all of the various aspects included under the two main objectives: 1. Leadership and buildings management 2. Education and pupil/community involvement There is already in place a programme of engagement with schools through Junior Energy Monitors. The JEM scheme is part of a wider programme of support for Education for Sustainable Development, a multi-agency partnership across Cheshire and Warrington. This includes encouragement of Eco-schools, and other sustainable development activities in school.
Quantified costs and benefits	⇒ Employment of an energy consultant would cost ~ £60K pa ; ⇒ Benefits to the LA are the saving in CRC emissions costs ⇒ Schools to pay a subscription but retain all of the savings. Annual Financial savings: £ 528,000 Payback period: 0.0 years Co2 Emissions reduction: 3,206.9 t CO_2 % of target: 25.13 %
Resources	⇒ Requirement to pump prime the funding of LA consultant ⇒ Line management and a steering group to guide the projects. ⇒ A budget of £ 10,000 is identified for the JEM scheme.
Ownership and accountability	⇒ Steering group from Children & Families and Assets ⇒ Accountability of the Consultant through the steering group. ⇒ Success based on schools hitting reduction targets year on year.
Ensuring success	⇒ Steering group and schools network to monitor progress
Performance/ success measures	⇒ LA success criteria based on level of school involvement ⇒ Schools success criteria based on individual progress plans
Timing	⇒ March 2011, initial thinking and project register development. ⇒ May 2011 o discussion with small group of HT representatives o presentation of project to HT conferences o Convene local networks ⇒ Summer 2011 project planning begins on site

Project	**Green ICT Strategy**
Reference	**CEC 43**
Description & notes	The Green ICT Strategy will focus on 3 key areas, 1) updating the Desktop Estate and desktop management tools; 2) building a new, efficient data centre; 3) raising staff awareness for switching PC's and peripherals off when the are not in use.
Quantified costs and benefits	Local Authority will reduce carbon emissions and minimise the increase in energy costs – the numbers and savings attributed to each element: **Topic** — **T Co2 saved** — **KwH** — **Cost of KwH** Staff awareness — 42 — 77,662 — £ 6,990 Data Centres — 92 — 171,582 — £ 15, 442 Desktop Estate — 173 — 323,454 — £ 29,111 **Total** — **307** — **572,698** — **£ 51,543**
Resources	**Topic** — **Capital cost** — **Comments** Staff awareness — £ 1,500 — Will be a new bid for 2011/12 Data Centres — £ 497,000 — Existing ICT Programmes. Green Desktop Estate — £ 550,000 — savings are a by-product. The main benefits are the reduction of existing costs and contracts, and to improve CEC service provision and provide resilience.
Ownership and accountability	Assets Manager (Arthur Pritchard) via Project Managers (Gareth Pawlett and Carl Horton-Leigh)
Ensuring success	**Topic** — **Measure of success** — **Measure used** Staff awareness — Reduced electricity — Meter readings, inspection Data Centres — PUE rating of 1.5 — Data Centre load and IT facility load – the closer the figures are the better the PUE rating. Desktop Estate — Reduced electricity — Meter readings
Performance/ success measures	
Timing	**Topic** — **Start/Finish** — **Phasing?** Staff awareness — On-going — Pilot in core sites Data Centres — Start – 2010/11 — N/A Finish – 2011/12 Desktop Estate — Start – 2010/11 — 10/11 – switch to HP desktops Finish – 2015/16 — 11/12 – software to switch off PC's 11/16 – develop 'thin' desktop

Project	**Property Rationalisation**
Reference	**CEC 45, 46**
Description & notes	The Asset Challenge Programme has been established in order to reduce the Council's Premises Portfolio. As a new Authority combining the former District Council's and 50% of the former County Council a large number of properties have been acquired. To assess the value to the Council of these premises will take into account the age and energy efficiency rating of the buildings. The Council wish to maximise the benefits of removing those properties deemed no longer fit for purpose and the Assets team are charged with an early disposal to meet this need.
Quantified costs and benefits	At a conservative estimate the Council will remove between 20 – 30% of the current premises. This will reflect a need to rationalise building accommodation and maximise the numbers of staff utilising each building. This will be complemented by policies to enable flexible and home working for appropriate staff. Allowing for the re-location of staff it is reasonable to project a saving of 12.5% of the emissions from energy consumption of the buildings that are removed from the portfolio. Capital costs: (45) £ 100,000 (46) £ 10,000 Annual Financial saving: £ 249,750 £ 6,000 Payback period: 0.4 years 1.7 years Co2 Emissions reduction: 1,521.1 t CO_2 49.3 t CO_2 % of target: 11.92 % 0.39 %
Resources	Core resources: Project Executive/ Project Manager/Assets Manager Virtual project team: HR/Legal/Procurement/ICT/Assets/ Accountant
Ownership and accountability	Assets Manager (Arthur Pritchard) Project Manager (Andrew Voss) The Asset Challenge Programme will be under the overall responsibilities of the Borough Treasurer and Head of Assets The Programme progress will be reported to Cabinet via the Portfolio Holder.
Ensuring success	Risks will be included in the Corporate Risk Register Key risks: Political focus and priority Key benefits: Reduce cost and carbon by 12.5% (minimum)
Performance/ success measures	Financial data through project Accountant Emissions data will be managed by the Energy Manager who is a member of the Assets Team
Timing	The urgency of the programme relates to the Budget savings that the Council is obliged to achieve. During the 5 year period of the Carbon Management Programme the Council will require fewer buildings and will continue to reduce staffing numbers to reflect financial pressures.

Project	**Invest to Save Energy Efficiency Measures**
Reference	**CEC 1-22, 31-41, 44, 47-57**
Description & notes	In September 2009 an Invest to Save business case was approved for energy saving measures in Council buildings. The return on investment exceeded expectations in year 1, with an average payback of less than two years. This provided a springboard for further funding. In 2010 a 3 year Invest to Save scheme was approved for the improvement of energy efficiency across the non school portfolio of buildings. Key sites have been selected based on their levels of consumption, energy efficiency rating, hours of business and potential to improve. Planned refurbishment programmes have been enhanced with extra levels of efficiency measures, Leisure Centres that open 17 hours a day have been targeted, and office accommodation and Community Support Centres have benefited from efficiency improvements.
Quantified costs and benefits	£475,000 has been invested to date in 43 projects with more in the pipeline. The benefits are an annual reduction in CO2 emissions of over 1220 tonnes so far, and a financial saving of £200,000 per year in energy costs.
Resources	The invest to save programme to date has involved for 2009/10 £75,000 in 2009/10 and £400,000 in 2010/11.
Ownership and accountability	Colin Farrelly, Energy Manager
Ensuring success	Proven technologies such as High Frequency dimmable fluorescent lighting combined with automatic controls, voltage optimisation, boiler controls, air conditioning controls, loft and pipe work insulation and urinal controls have been installed across the portfolio to date. The momentum needs to be maintained during the lifetime of the invest to save programme.
Performance/ success measures	Continuous monitoring of energy and CO_2 savings from all individual projects
Timing	An ongoing process of identifying solutions in all non-school buildings. Benefits from additional project will reduce over time as the high impact schemes are completed.