



Leicestershire County Council Carbon Management Programme

Carbon Management Plan (CMP) 2009 - 14

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Foreword

Climate change is a global challenge and requires a global response. Leicestershire County Council has shown its commitment to address the causes of climate change by signing the Nottingham Declaration on Climate Change. This plan outlines how we will reduce our carbon emissions and make carbon management an important part of everything we do. There is no denying that it will not be a simple task and that we will need all our staff and partners to support us in becoming a low carbon authority. We hope that our leadership in this area will inspire others and that our experience may help others to take similar action.

John Sinnott
Chief Executive

Councillor Ernie White
Cabinet Lead Member for Community Services



Foreword from the Carbon Trust

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

Leicestershire County Council was selected in 2008, amidst strong competition, to take part in this ambitious programme. Leicestershire County Council partnered with the Carbon Trust on this programme in order to realise vast carbon and cost savings. This Carbon Management Plan commits the council to a target of reducing CO₂ by 30% by March 2014 and underpins potential financial savings to the council of around £20 million.

There are those that can and those that do. Local authorities can contribute significantly to reducing CO₂ emissions. The Carbon Trust is very proud to support Leicestershire County Council in their ongoing implementation of carbon management.

Richard Rugg
Head of Public Sector, Carbon Trust





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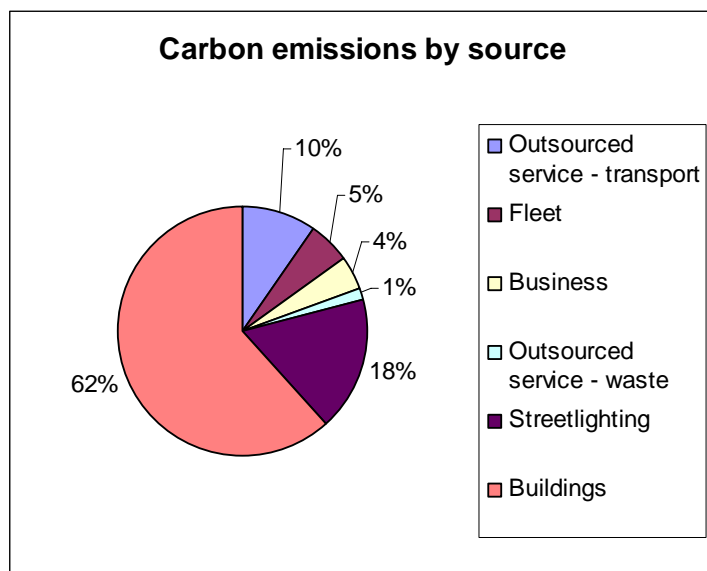
Management Summary

This Carbon Management Plan sets out Leicestershire County Council's approach to mitigating climate change through carbon reduction for its own operations. The document covers the authority's experience of the Carbon Trust's Carbon Management Programme and how the Council plans to take this issue forward over the next 5 years.

Climate change is the greatest challenge facing the world today. It is a global issue that demands a global response. The UK plays a leading role at the international level. At a more local level, the Sustainable Community Strategy for Leicestershire provides the overarching document for the priorities for the County. Included within these priority outcomes is an improved response to climate change.

The Local Area Agreement for Leicestershire includes NI 185 - percentage CO₂ reduction from LA operations which commits the County Council and its District and Borough Council partners to a 4% year on year reduction in CO₂ emissions from their own operations in 2009 and 2010 (2008 - 09 is the baseline year). This is one of many drivers for carbon management within the County Council. (Section 2)

Leicestershire County Council's carbon emissions in 2007 were calculated to be almost 88,500 tonnes. The chart below shows the source of these emissions. The reduction target is to reduce the Council's carbon emissions by 30% from the 2008-09 baseline by the end of March 2014. The County Council's cost of energy consumption (and hence carbon emissions) will rise from £14.4m in 2007 (the last year for which we currently have figures) to £22.4m in 2012. Under a reduced emission scenario this figure is £15.1m.



Actions to reduce our carbon emissions are outlined in eight strategic themes; policy, resources, communications, working with partners, procurement, buildings energy use (including schools), street lighting and transport. The opportunities for carbon reduction within the County Council include technological investments such as PC Power Management Software and Voltage Optimisation along with low cost measures such as Energy Awareness campaigning and promoting good housekeeping. In the long term, embedding carbon management in policies and processes, such as procurement will be essential to maintain a low carbon path. (Section 4 and 6). The projects that have been identified so far do not represent the full 30% reduction which the Council aspires to. Each year a new programme of opportunities will be identified and quantified. Through this process the Council is confident that it can meet its target by March 2014.

The Carbon Management Programme will be partly funded from the newly established Salix Fund. An original Invest-to-Save budget of £500k allocated to energy efficiency measures has been used as match funding along with other funding from the Local Area Agreement Delivery Fund (£143k) to establish a £1.3m



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pot of investment funding. Many of the projects and programmes identified in the first year of the Programme have been existing projects with carbon benefits. For this reason most of them do not require additional resources and are planned to be serviced by existing Departmental budgets. (Section 5)

Governance of Carbon Management at Leicestershire County Council will be a work stream of the new Environmental Management Change Programme and will be regularly monitored and reviewed.(Section 7)



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1 Introduction

This Carbon Management Plan sets out Leicestershire County Council's approach to mitigating climate change through carbon reduction. The document covers the authority's experience of the Carbon Trust's Carbon Management Programme including the establishment of Governance structures for this issue, raising awareness across the authority including with County schools, measuring the carbon emissions from our own operations and the projects which have been identified for a programme of carbon reduction. Most importantly of all it outlines how the County Council intends to embed carbon management into all service areas and to adopt it as a key objective of the authority for the future.

Leicestershire County Council has been recognised for its achievements in building sustainable schools and its excellent Highways operations. The authority is committed to a network of hourly bus services for the rural parts of the County supporting our communities to reduce their own carbon footprints. This programme incorporates some of these initiatives and brings together activity across the council on carbon reduction to build momentum and to capture and quantify the benefits to the environment and the Council's efficiency targets.

2 Carbon Management Strategy

Climate change is the greatest challenge facing the world today. It is a global issue that demands a global response. All countries must be part of the solution. The UK plays a leading role at the international level. The government are working through the European Union, G8 and UN Framework Convention on Climate Change (UNFCCC) processes to find ways to reach global agreement on action to avert dangerous climate change.

The UK Government's goal is to stabilise atmospheric greenhouse gas levels to avoid dangerous climate change, and to adapt to the climate change that is unavoidable. The UK Government and the EU consider that global warming must be limited to no more than 2°C temperature rise above pre-industrial times to avoid dangerous impacts.

Crucial to achieving this goal is securing a global agreement to a realistic, robust, durable and fair framework for the post-2012 period, when the first set of targets under the Kyoto Protocol expires. The UK Government is therefore aiming to reach an ambitious agreement at UNFCCC Conference of Parties at Copenhagen in December 2009, supported by effective domestic action (under the Climate Change Act 2008) and through the EU (under the 2020 package).

The UK Climate Change Programme - the 2006 Programme is the UK's key strategy for its work on tackling climate change. It sets out the policies and measures which the UK is using to cut its emissions of greenhouse gases. It also explains how the UK plans to adapt to the impacts of climate change

The Climate Change Act 2008 introduces the world's first long term legally binding framework to tackle the dangers of climate change. Amongst the key provisions of the Act is the Carbon Reduction Commitment for large business and public sector organisations such as Leicestershire County Council. The CRC will be a mandatory emissions trading scheme, targeting emissions currently not included in existing schemes. From 2010, organisations covered by the CRC will be required to buy allowances to cover their emissions and these will be recycled back according to the organisations position in performance league tables.

Leicestershire County Council has identified energy management and efficiency as a priority for improvement as this issue has been under resourced in the past. Some of the authority's property portfolio is performing below typical benchmarks for energy consumption and represents clear opportunities for improving our environmental impact and offers financial benefits.

In December 2006 Leicestershire County Council signed the Nottingham Declaration on Climate Change. The declaration is a pledge that can be signed by councils, businesses and community groups, to encourage people to reducing their carbon emissions.

The Local Area Agreement for Leicestershire includes NI 185 - percentage CO₂ reduction from LA operations which commits the County Council and its District and Borough Council partners to a 4% year on year reduction in CO₂ emissions from their own operations in 2009 and 2010 (2008 - 09 is the baseline year). Financial rewards will be available to the Leicestershire Together Partnership if these targets are met or exceeded. All the local authorities in the area will be judged together and any under achievement must be compensated for by another authority.

2.1 Context and drivers for Carbon Management

In this section we have set out why Leicestershire County Council is involved in the Carbon Management Programme, provided by the Carbon Trust, and what we want to achieve from this.

Leicestershire County Council has joined the Carbon Management Programme to:

- Mitigate the impacts of climate change by identifying, understanding and reducing our carbon emissions
- Contribute to the efficiency savings of the authority by reducing our use of energy and fuel



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- Meet our commitments as a signatory to the Nottingham Declaration on Climate Change
- Increase the proportion of our energy needs from renewable and clean fossil fuel technology (for example good quality combined heat and power)
- Promote continuous improvement of our environmental performance
- Demonstrate leadership and good practice to our community

Factors driving us to take action on Climate Change

- **Leadership and reputation** – the County Council is committed to demonstrating the good environmental performance to its community and wants to be recognised as one of the best performing authorities on green issues.
- **Wise and responsible use of natural resources** – by minimising the impacts of our activities the Council can contribute to the improvement of the global environment through local action.
- **Climate Change responsibilities** – action by local authorities will be critical to the achievement of the Government's climate change objectives. This has created a number of legislative drivers for councils.
- **Citizenship and the next generation** – by setting a good example and providing learning environments which are efficient and environmentally friendly we aim to produce knowledgeable and responsible citizens who will respect and protect the natural environment both now and in the future
- **Contribution to the efficiency agenda** – Leicestershire County Council must deliver considerable efficiency savings over the coming years. The Carbon Management Programme should deliver £5m efficiency saving over 5 years for the authority.

2.2 Our low carbon vision

Leicestershire County Council will reduce its carbon footprint to begin the journey towards a low carbon future. This vision is in line with the County Council's Environment Policy and supports our efficiency agenda. The Council is working hard to deliver sustainable communities and is focussed on providing leadership to partners and the public.

2.3 Strategic themes

2.3.1 Policy

To effectively embed carbon management in the County Council's 'business' our policy framework needs to reflect the carbon reduction as a priority objective of the Council

2.3.2 Resources

Carbon management champions need to be identified across the Council to deliver carbon reduction projects but to also spread the message of the Council's aspiration to become a low carbon organisation and how staff can contribute

A ring fenced Invest to Save budget for energy efficiency measures was established as a result of a Scrutiny review of energy management. In order to maximise the benefit from this funding it will be used as match funding for a Salix Finance bid. The Salix Fund will be established as a rolling Invest to Save fund of £1.3 Million for interest-free loans for carbon reduction projects. (see Para 5.5)

2.3.3 Communications

To develop a low carbon culture in Leicestershire County Council every member of staff must understand the aspirations of the Council and how they can contribute. It will also be important to communicate the success of the Carbon Management Programme and to show the carbon benefits of other Council initiatives.



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2.3.4 Working with partners

Through the Local Area Agreement the County Council and District/Borough Councils of Leicestershire must work together to reduce CO₂ emissions from their own operations. This work is being carried out through the CLIMA group of council officers.

2.3.5 Procurement

Not only does the procurement of goods and services contribute to the Council's carbon footprint through transportation etc but it can also impact on the efficiency of our own operations e.g. energy efficient ICT equipment reduces running costs and carbon emissions. Our procurement practice should reflect the low carbon aspirations of the Council.

2.3.6 Buildings energy use (including schools)

Buildings account for the largest proportion of the Council's carbon emissions and schools in particular are a significant source of emissions. Improving the energy efficiency of the buildings stock and ensuring that we maximise the use of our property assets will improve our performance.

2.3.7 Street lighting

Street lighting is a significant contributor to the Council's carbon footprint and offers opportunities for efficiency and carbon reduction.

2.3.8 Transport

The Council is responsible for a number of categories of transport emission which will be addressed through carbon reduction projects. These include:

- Fleet emissions
- Business mileage
- Outsourced transport e.g. local bus services, school buses

2.4 Targets and objectives

Leicestershire County Council will reduced its carbon emissions by 30% from the 2007 baseline by the end of March 2014

The Leicestershire Local Area Agreement includes National Indicator 185 – CO₂ reduction from local authority operations and requires the County Council and its seven District/Borough Council partners to reduce their CO₂ emissions by 4% from the 2008/09 baseline by March 2010 and by another 4% by March 2011.

3 Emissions Baseline and Projections

3.1 Scope

Leicestershire County Council's emissions baseline is based on the scope set out for measuring NI185 CO₂ reduction from local authority operations.

This is defined as:

"NI 185 is to include all CO₂ emissions from the delivery of local authority functions. In terms of the meaning of the word in legislation "function" covers both the duties and powers of an authority. It covers all an authority's own operations and outsourced services. Even if the services are being provided by an external body (e.g. a private company) they remain the function of the authority.

There is no exhaustive list of the powers and duties of an authority in legislation, as the term function is taken to understand what that means for the relevant authorities. However, it should be clear that schools and business travel are included within the definition. However, social housing provided by the authority or a third party is not included within the scope of the indicator. Employee commuting is also not included"

The focus has been on capturing the authority's main emissions sources to an acceptable level of accuracy. Where data quality is poor or very difficult to obtain proxies have been used and the methodology recorded.

The following list gives the detailed scope of what's included in the County Council's baseline data.

Energy use – all buildings inc schools, street lighting	✓
Energy use – non council owned buildings providing outsourced services to council	✓
Tariff details – all fuels	✓
Fleet vehicles	✓
Business travel	✓
Transport data for outsourced services (fleet and business travel)	✓
Housing data*	✗
Waste produced by council buildings (tones)**	✗
Volume of water used by council buildings***	✗
Any other item you wish to include (eg embodied CO ₂ of paper)****	✗

*Residential care homes owned and operated by the County Council have been included.

**There is insufficient detailed information on waste tonnage to include this at present. Other programmes are in place to reduce the amount of waste produced by the Council

***This information is not available for all buildings

****Difficult information to gather with little direct control over production



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3.2 Baseline

The baseline year is the calendar year 1 January to 31 December 2007. This is not in line with the NI 185 baseline of financial year 2008/09 but a substantial amount of data had been gathered before the reporting year for NI 185 was changed from calendar year to financial year.

Details of the data sources and emissions factors that have been used to calculate the baseline can be found in the NI 185 reporting spreadsheet.

Data quality and management issues that arose from the collection of the 2007 emissions baseline are outlined in Section 6.4

(NOTE – The 2007 baseline estimates are the latest figures of actual emissions currently available and have been used to illustrate the cost savings over a 5 year period. It is anticipated that equivalent figures would be achieved over the 5 year plan period 2009-14.)

	Total	Buildings	Street lighting	Transport (fleet and business mileage)	Outsourced services (transport and waste)
Baseline CO₂ emissions (tonnes)	88476	54453	15705	8513	9806
% of overall emissions	100	62	18	9	11
Baseline Cost (£)	14,450,175	7,347,786	2,193,750	4,908,639	-
% of overall cost	100	51	15	34	-

Table 3.1 – Summary table of emissions for baseline year 2007

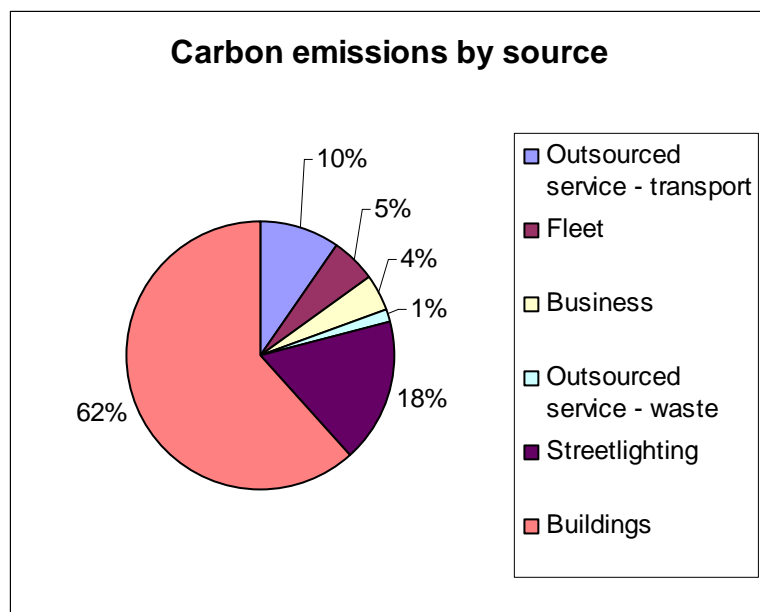


Figure 3.1 Summary of emissions for baseline year 2007

3.3 Projections and Value at Stake

Figure 3.2 illustrates the cost to the County Council of not embarking on a carbon reduction programme. The Business as Usual (BaU) projections of emissions from the 2007 baseline has been generated from the completed baseline spreadsheet. The projection makes the following assumptions.

- BaU Increase in Demand for all stationary sources, 0.7% (source DTI/DBERR EP68)
- BaU increase in demand for Fleet, 0.7% (source DTI/DBERR EP68)
- Value at stake assumes an 8.4% increase in the cost of energy and fuel (source DTI/DBERR EP68)

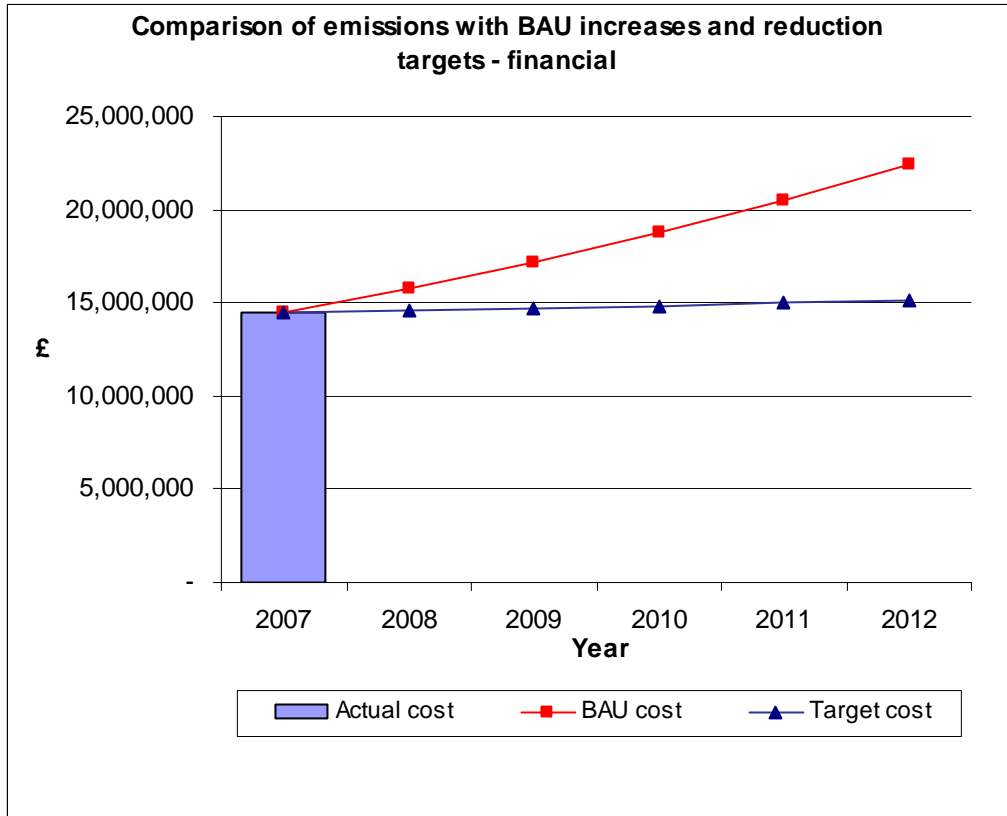


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The Business as Usual graph shows the County Council's cost of energy consumption (and hence carbon emissions) rising from £14.4m in 2007 to £22.4m in 2012. Under a reduced emission scenario (Target Cost) this figure is £15.1m. The reduced emission scenario offers the County Council an annual saving of over £7m by 2012, a cumulative saving of over £20m during the five years from 2007 – 2012.

Figure 3.2 Value at Stake – what savings does carbon management offer





4 Carbon Management Projects

This section lists the individual actions and projects that will be undertaken as part of Leicestershire County Council's Carbon Management Programme. The tables below set out key information for each project, more detail can be found in the Project Templates at Appendix A.

Project Identification was developed by a variety of means. An Opportunities Workshop was hosted with the Carbon Trust Advisers and the Core Team and Project Board had been previously invited to suggest projects for inclusion in the programme. Projects were then prioritised according to their Ease and Effect with a balance of flagship, short, medium and long term projects.

4.1 Summary of projects

Actions relating to embedding carbon management into the organisation are included in Section 5. The projects outlined here are practical projects which are directly linked to carbon reduction. The projects reflect the source of emissions for the authority and are only outlined here. More information is available on the Project Templates at Appendix A.

4.1.1 Buildings energy use (including Schools)

Our planned activities in buildings reflect their contribution to the baseline. Overall buildings represent 62% of the footprint and 47% of this is from school buildings.

Energy Awareness Campaign: The target emissions reduction for this project is 10% of the total buildings emissions. This project includes supporting energy auditing of schools and implementing measures with the financial support of a Salix Fund. The Big Switch Off campaign 2008 achieved a 13% saving on electricity use at County Hall showing the potential for savings from simple no or low cost measures.

Accommodation/Office Strategy: The County Council is rationalising the number of buildings it needs to perform its duties and it maximising the efficiency of its remaining assets through refurbishment.

Improving the efficiency of existing buildings: Several programmes of work come under this heading including upgrades to glazing, insulation, boiler replacements, and lighting

ICT: A number of projects aim to reduce the energy requirements of our office equipment. The Central Print project will reduce the number of printers (initially at County Hall) and replace a number of machines with multifunctional devices for printing, copying, scanning and faxing. The Power Management project will enable the automatic shut down of equipment at certain times of day without losing data. The Server virtualisation project reduces the amount of hardware operating in the office environment.

Improving the efficiency of new buildings: The County Council has developed award winning school developments in recent years. The programme of school replacements will gather pace with the beginning of the Building Schools for the Future Programme in 2013 and the Primary School Replacement Programme. The carbon savings from these new school developments are largely outside the scope of this 5 year plan but some existing projects have been included e.g. Forest Way Special School and John Ferneley High School.

In addition, some schools rely on mobile classrooms for additional teaching space and the replacement programme enables carbon savings by using new, more efficient structures.

Voltage optimisation: The voltage optimisation project is a pilot on 3 electricity intensive buildings (County Hall, Snibston Discovery Museum and Beaumanor Hall) to test the savings provided by this 'drop-in' technology.

4.1.2 Transport emissions

Transport emissions including outsourced contracts such as local bus services and schools transport account for 20% of the Council's emissions.

Reducing business mileage: This project includes a raft of measures to remove incentives for additional mileage and to provide opportunities for staff to reduce their business mileage. A review of Human Resources policies will be completed to address perverse incentives for staff to complete unnecessary mileage. The Work Well Programme will deliver solutions for mobile and flexible working which will support

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reduced business mileage, including Agile IT. The County Hall Travel Plan will provide support to staff to use alternatives to single occupancy car journeys for commuting and other business travel. The promotion of teleconferencing for internal meetings will reduce the need to travel and for meeting space. The target emissions reduction for this area of work is 10%.

Reducing fleet emissions: The projects aimed at reducing fleet emissions include an electronic tracking system to monitor journeys and vehicle efficiency, the purchase of new vehicles to replace existing transport and driver training to promote safe and efficient driving.

4.2 Existing projects

The projects listed in this section are already underway or completed and are already delivering savings on the 2007 baseline. The Reference listed here relates to the Project identifier in the Carbon Management Projects Register used for quantifying and prioritising project investments, contact the Project Lead for more information.

Ref	Project	Cost		Annual Saving		Pay back (yrs)	Year
		Capital	Revenue	Financial	CO ₂		
5	New Forest Way Special School	2138365	10000	3768	20	100+	08/09
7	Energy Awareness Campaign	0	17000	939918	5009	<1	08/09
11-19	Boiler replacement programme 2008/09	346500*	450	6951	98	-	08/09
50	Mobile replacement 08/09	1020900*	8000	904	40	-	08/09
64	UPVC Glazing replacement programme 08/09	149305*	0	2168	11	-	08/09

* no additional cost for carbon reduction above business as usual programmes

4.3 Planned / funded projects

This section lists all projects which are definitely planned to take place and have funding allocated. The investment required is outlined in the Section 5 Finance.

Ref	Project	Cost		Annual Saving		Pay back (yrs)	Year
		Capital	Revenue	Financial	te CO ₂		
1-3	Voltage Optimisation	152510	0	87956	472	1.8 ave	09/10

4.4 Near term projects

This section lists projects which are not yet funded but which should be implemented within the following two years subject to budget allocation.

Ref	Project	Cost		Annual Saving		Pay back (yrs)	Year
		Capital	Revenue	Financial	te CO ₂		
4	New John Ferneley High School	3393754	10000	58696	367	51	10/11
8	Accommodation/Office Strategy	0*	0	210427	1123	0	10/11
9	ICT Power management	70000	0	120000	644	<1	09/10
10	Driver Training	10600	0	12351	28	1	09/10
20-	Lighting upgrades 09/10	90000*	800	50904	277	2.2 ave	09 - 12



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39	County Hall Server virtualisation	91860	0	12846	69	7.5	10/11
40	Loft Insulation upgrades 09/10	47144	0	8250	124	5.7	09/10
41	Passenger Fleet renewal	1000000*	0	15053	34	-	09/10
43	Boiler replacement programme	346500*	500	49029	262	7	09 - 12
58	Mobile replacement programme	1020900*	9000	7231	39	-	09 - 12
69	GPS for the FPU	400000*	0	61754	141	6.5	09/10
72	UPVC Glazing replacement programme	219341*	0	1386	7	-	09 - 12
79	Reducing business mileage	0	0	156261	357	0	09/10
80	Central Print Project	0*	0	25000	13	0	09/10

* no additional cost for carbon reduction above business as usual programmes

4.5 Medium to long term projects

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

Street Lighting: Street lighting accounts for 18% of the Council's baseline emissions however efficiencies in this area are expensive to obtain and can have knock on impacts onto other issues. For this reason, this area of work is highlighted for further investigation in the long term

Invest to Save Programme: The County Council is submitting a bid to Salix Finance to develop a £1.3m rotating fund for energy efficiency measures. Over £1m of this pot has yet to be committed to projects but offers the potential for significant savings in the long term. Those savings have been represented here as they cannot be accurately quantified at this point. The savings represented here are considered the 'worst case scenario' so as not to overestimate the potential of the fund.

School lighting Programme: The school estate represents a significant proportion of the County Council's carbon footprint and lighting can represent up to 29% of each schools emissions. A programme of lighting investment across the school estate could bring significant savings but would require increased investment.

Ref	Project	Cost		Annual Saving		Pay back (yrs)	Year
		Capital	Revenue	Financial	te CO ₂		
6	Street Lighting programme	788460	0	280000	1504	2.8	-
85	School lighting programme	7000000	0	500000	2685	14	-
89	Invest to Save Programme	1000000	50000	200000	1074	5	-

4.6 Projected achievement towards target

In the first year of the Carbon Management Plan it has been possible to identify 17080 te CO₂ saving, this represents 20% of the total baseline. This leaves a 10% gap between our chosen plan and our target which will be identified during annual reviews of project opportunities.



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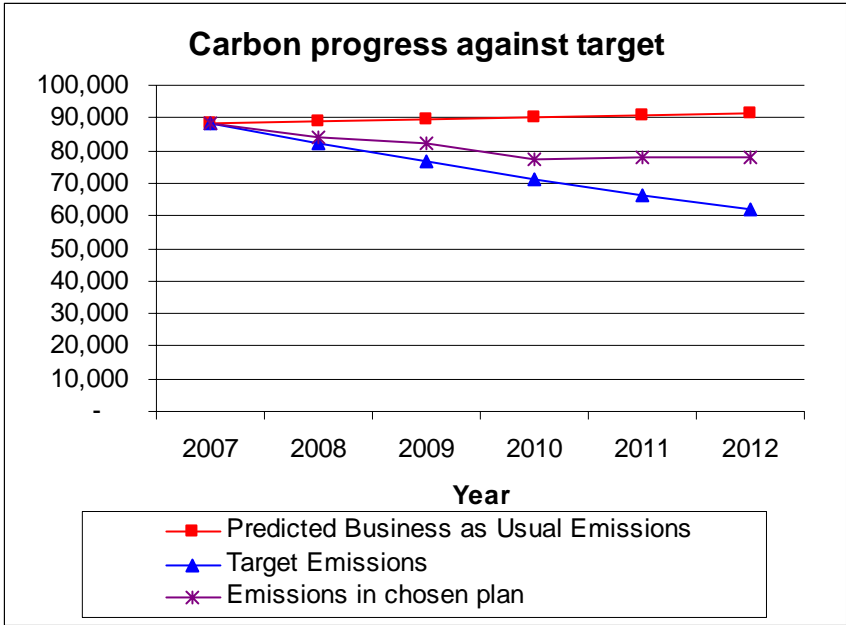


Figure 4.1 Carbon progress against the target

5 Carbon Management Plan Financing

The Carbon Management Programme will be funded mainly from the newly established Salix Fund. An original Invest-to-Save budget of £500k allocated to energy efficiency measures has been used as match funding along with other funding from the Local Area Agreement Delivery Fund (£143k) to establish a £1.3m pot of investment funding. All projects funded in this way must be compliant with the Salix Funding conditions. Other projects which represent good value for money and appropriate pay backs may be supported from the County Council's general Invest to Save budget for efficiency measures.

The Salix Fund will be established as a rotating fund made available for interest free loans to compliant carbon reduction projects. The loans will be repaid from 75% of the energy cost savings made from implementation until the total is repaid. After this time, the budget owner will keep 100% of the savings.

Many of the projects and programmes identified in the first year of the Programme have been existing projects with carbon benefits. For this reason most of them do not require additional resources and are planned to be serviced by existing Departmental budgets. However, with the Salix Fund in place there will be a financial back up for compliant projects should budget resources become reduced.

5.1 Assumptions

Assumptions used for the quantification of savings have been outlined in Appendix E.

5.2 Benefits / savings – quantified and un-quantified

	2009/10	2010/11	2011/12	2012/13	2013/14
Annual cost saving (£000s)	909	1447	2449	2426	2436
Annual CO₂ saving (te)	4997	7595	13213	13256	13246
% of target achieved	19	29	50	50	50

5.3 Unquantified benefits:

- An improved reputation with staff: 55.3% of staff in the 2008 staff survey agreed with the statement “I believe the Council is doing enough to reduce its carbon emissions should be doing more to respond to climate change”
- Early preparation for the Carbon Reduction Commitment and increasing the amount of allowances that are recycled
- Supporting our performance on the achievement of the Local Area Agreement targets on NI 185 Carbon emissions from Local Authority operations
- Reducing our reliance on fossil fuels and improving our energy security
- Providing leadership to our communities and partners
- Providing a systematic approach to understanding our environmental risks and impacts and developing a pragmatic response



5.4 Financial costs and sources of funding

figures in £ 1000's	2009/10	2010/11	2011/12	2012/13	2013/14	2014/1
Annual costs:						
Total annual capital cost	4055	4550	12730	2337	2337	1538
Total annual revenue cost	35	80	39	29	31	17
Total costs	4090	4630	12769	2366	2368	1555

5.5 Salix Fund commitment

The table below shows the projects which require finance and have been included in the bid to Salix Finance as compliant projects. This leaves around £1m investment from the Fund un-committed (this has been included in the projects list as a carbon saving opportunity).

Project Description	Cost
ICT power management software, County Hall	£70,000
Voltage optimisation, County Hall	£97,806
Voltage optimisation, Beaumanor Hall	£36,031
Voltage optimisation, Snibston Discovery Park	£18,479
Calorific value enhancer, County Hall	£13,500
Calorific value enhancer, Snibston Discovery Park	£19,200
Loft insulation, various sites	£52,319
TOTAL	307335

6 Actions to Embed Carbon Management in Your Organisation

The Carbon Management Embedding Matrix at Appendix B shows what the scores were for Leicestershire County Council before the Programme, now and where the authority aspires to be in by March 2012. The following actions are the steps needed to reach the higher benchmarks.

6.1 Corporate Strategy – embedding CO₂ saving across your organisation

Action	Who	By When
Senior endorsement of Carbon Management Plan	Cabinet/CMT	End April 2009
Corporate Service Planning Guidance requires all Depts to outline a contribution to carbon management	Performance Team	End March 2009
Carbon Management and reduction target included in the Environment Strategy (to become part of the policy framework of the County Council)	County Council	End March 2009
Carbon targets negotiated with Departments	Carbon Management Project Board	September 2009
Targets embedded into Departments' Service Plans	All Departments	March 2010

6.2 Programme Management – bringing it all together effectively

This factor of embedding Carbon Management is covered in Section 7 Programme Management.

6.3 Responsibility – being clear that saving CO₂ is everyone's job

Action	Who	By When
A Member Champion for the environment with responsibility for climate change issues will be identified	Cabinet	June 2009
Carbon saving will be included in relevant job descriptions	Corporate HR	March 2011
The Carbon Management Board and Core Team to act as champions in their Departments	CM Board and Core Team	Ongoing
Information on the environment policy and carbon management issues will be included in all induction packs	Corporate HR	March 2010

6.4 Data Management – measuring the difference, measuring the benefit

Action	Who	By When
Identify information requirements to meet objectives e.g. carbon accounting and other contributing KPIs i.e. business mileage	Carbon Management Board	March 2009
Develop an approach and responsibilities for data collection	Performance Team	October 2009
Information on individual vehicles will be collected for grey fleet emissions	Payroll	March 2010
Other business travel will be recorded by method and mileage	Payroll	March 2010
Improvements will be implemented in the Property Management Information Systems to record the details of the County Council's Property assets	Property Services	March 2010



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Carbon emissions will be monitored quarterly to record progress against the target and reported to staff twice yearly	NI 185 Responsible Officer	July 2009 and ongoing
Contact existing key suppliers for carbon emission data	NI 185 Responsible Officer	End April 2009

6.5 Communication and Training – ensuring everyone is aware

Action	Who	By When
Carbon Management will be integrated with new and existing awareness campaigns for energy efficiency and transport	Internal Communications	April 2009 and ongoing
Carbon benefits of existing Programmes will be highlighted to staff	Internal Communications	April 2009 and ongoing
Carbon management hints and tips will be included in a Green Work Handbook included in all staff induction packs and on CIS	Environmental Action Team	September 2009
Carbon management will be integrated into environmental awareness training for all staff and procurement training	CPU	September 2009
Follow on questions will be included in the Staff Survey each year to monitor staff attitudes to the County Council's response to climate change issues (questions were first included in 2008 at the beginning of the Carbon Management Programme)	Internal Communications	September 2009 and annually
Publicity on the achievements of the Carbon Management Programme will be included on the website, Leicestershire Matters, annual Environment Statement and press released to local media	Carbon Management Project Lead	April 2009 and ongoing
Establish a Champions scheme with opportunities for carbon championing	Environment Board	September 2009

6.6 Finance and Investment – the money to match the commitment

This factor of embedding Carbon Management is also covered in section five of this Plan.

Action	Who	When
Identify key finance contacts for local monitoring	Finance Champion	September 09
Identify Corporate Resources financial resourced to coordinate	Finance Champion	April 09
All business cases for projects to be reviewed by Finance prior to acceptance	Finance Champion	As required

6.7 Policy Alignment – saving CO₂ across your operations

Action	Who	By When
Review of corporate policy documents to highlight risks to carbon reduction beginning with HR policy, Procurement and Capital projects	CMT	June 2009
Departments to review policy documents to highlight risks to carbon reduction	All Departments	June 2009



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Group action plans to identify contribution to carbon reduction	All group managers	June 2009
Team leaders to highlight carbon reduction to staff	Team leaders	June 2009
Impact on carbon emissions to be included in all Project Initiation Documents	CMU	April 2009
Standard clause on carbon management and information provision in all new contracts (where relevant)	CPU	April 2009



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7 Programme Management of the CM Programme

Leicestershire County Council has ensured effective management of the Carbon Management Programme by establishing a Board of senior managers to oversee the work of the Programme. Alan Morrison, Director of Community Services provides senior, strategic ownership of the Carbon Management Programme. He provides a key role in championing the Programme and identifying and removing blockages as they occur.

The Core Team has brought together project owners from across Departments and identified a diverse set of existing and new projects to deliver carbon savings.

Councillor Ernie White provides is the Member Sponsor of the Programme is the Climate Change Member Champion for the authority.

7.1 The Programme Board – strategic ownership and oversight

The Carbon Management Board includes

- Chair: Alan Morrison, Director of Community Services
- Judith Spence, Head of Corporate Finance
- Ian Drummond, Assistant Director, Transportation (HTWM)
- Bob Dutton, Learning Environment Manager (CYPS)
- Steve Siddons, Head of Property Services and Asset Management
- Ros Speight, Business Manager (ASCS)
- Adrian Stephenson, Head teacher of Shepshed High School

The Board will meet quarterly

The Project Lead will report the following to the Board

- Communications
- Project progress
- Progress against the target
- Risks and Issues
- Finance

The Board will report to the Environment Board quarterly on the above items. Highlights will be reported to Corporate Management Team twice per year. The structure chart at Appendix C shows how the Carbon Management Board fits within the structure of the Environmental Change Programme Board.

7.2 The Carbon Management Team – delivering the projects

The Carbon Management Team includes

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Role	Name and position in the LA
Project Leader	Donna Worship Climate Change Manager
Deputy Project Leader	Lisa Rodmell Energy Engineer
Carbon Management Core Team members	Peter Hosking Street Lighting Team Manager
	Simon Smith Fleet Team Manager
	James O'Brien Waste Policy and Strategy, Project Manager
	Peter Woodward Team Leader (Passenger Fleet)
	Ros Speight Business Manager, Adult Social Care
	Wayne Ruddock ICT champion
	Dave Cragg Building Design Manager
	Sue Owen & Julie Muddimer Development Officers, Learning Environments Team
Arnold Lupunga Procurement Manager	

The Core Team will meet every 6 months to review progress on project implementation and convene once per year to identify new carbon saving opportunities.

7.3 Succession planning for key roles

The roles of Project Lead and Project Sponsor will be monitored and resourced through the Environmental Change Programme Board as required

7.4 Ongoing stakeholder management

The table at Appendix D shows the Stakeholders that have been identified as important to the Carbon Management Programme and how they will be kept up to date.



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7.5 Annual progress review

Although progress against the carbon reduction target will be monitored quarterly in line with the NI 185 targets, an annual progress review of the Carbon Management Programme will also be produced. This will include

The review will:

- cover the cost and all benefits from the Programme:
 - financial savings, either cashable or returned to the rotating Salix Fund
 - CO₂ savings against the target
 - less quantifiable benefits, such as influencing the local community (supporting NI186)
- align with NI185 reporting
- be reported to CMT / Cabinet, via the Programme and Environment Board

Appendix A: Definition of Projects

Each project included in the Carbon Management Programme has been detailed in the following template. They are available on request from the Project Lead.

Project:	A short name for the project
Reference:	<i>It would help the Carbon Trust if you also use the following reference: LA6-[first three letters of your authority]-[sequence number, e.g. 001] but you may choose to use a unique reference of your own.</i>
Owner (person)	<i>Name of the person responsible for delivering the project</i>
Department	<i>Which part of the organisation the project sits within</i>
Description	<i>A short description of the project, no more than a paragraph</i>
Benefits	<ul style="list-style-type: none"> • <i>Financial savings: £ [x]</i> • <i>Payback period: [x] years</i> • <i>CO₂ Emissions reduction: [x] tonnes of CO₂</i> • <i>% of target – the percentage of your CO₂ saving target will this project annually contribute</i>
Funding	<ul style="list-style-type: none"> • <i>Project cost, e.g. the initial cost of implementing the project</i> • <i>Operational costs, e.g. annual maintenance or running costs</i> • <i>Source of funding: internal, external, investment criteria to be met etc.</i> • <i>Say how /when decision on funding will be made</i>
Resources	<ul style="list-style-type: none"> • <i>Additional resource (e.g. people) requirements to enable delivery and where these will come from</i> • <i>If this project will be delivered within current resources, say so</i>
Ensuring Success	<ul style="list-style-type: none"> • <i>Key success factors, or things that will need to happen for this project to succeed</i> • <i>Principal risks: technical, financial (eg what happens if the project is insufficiently resourced), etc.</i>
Measuring Success	<ul style="list-style-type: none"> • <i>Metrics for displaying performance or achievement</i> • <i>When success will be measured / evaluated</i>
Timing	<ul style="list-style-type: none"> • <i>Milestones / key dates e.g.</i> <ul style="list-style-type: none"> ○ <i>start date: dd/mm/yyyy</i> ○ <i>completion date (when it will deliver savings): dd/mm/yyyy</i> ○ <i>interim deliverable / decision points</i> <p><i>[you could also lay these out as a milestone chart for ease and clarity]</i></p>
Notes	

Appendix B: Carbon Management Matrix - Embedding

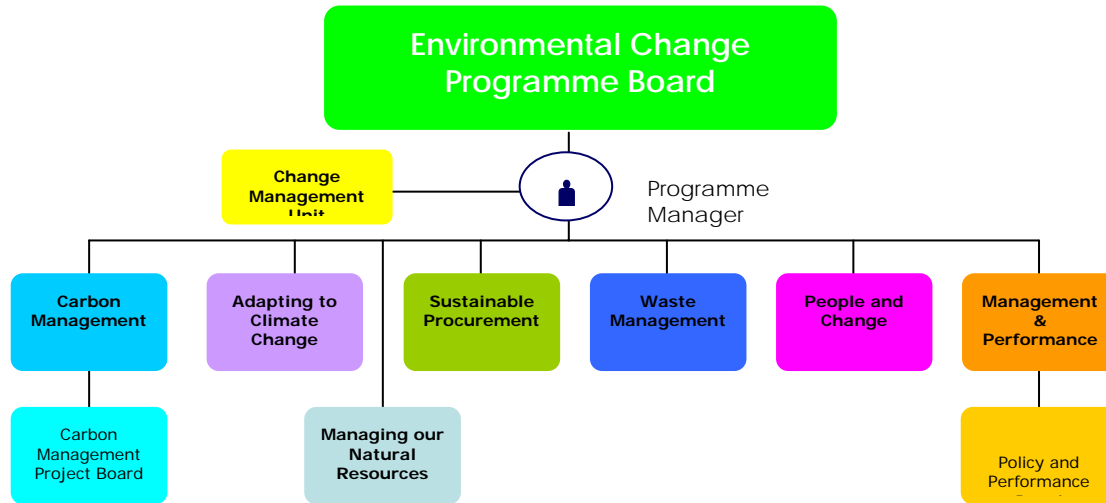
March 2008	2	1	1	2	2	2/3	1/2
March 2009	3	1/2	2/3	3	2	4	3
5yrs	5	4	4	4/5	4/5	5	5
Challenge			✓		✓	✓	
	CORPORATE STRATEGY	PROGRAMME MANAGEMENT	RESPONSIBILITY	DATA MANAGEMENT	COMMUNICATION & TRAINING	FINANCE & INVESTMENT	POLICY ALIGNMENT *
BEST 5	<ul style="list-style-type: none"> Top level target allocated across organisation CO₂ reduction targets in Directorate Business Plans 	<ul style="list-style-type: none"> Cabinet / SMT review progress against targets on quarterly basis Quarterly diagnostic reports provided to Directorates Progress against target published externally 	<ul style="list-style-type: none"> CM integrated in responsibilities of senior managers CM part of all job descriptions Central CO₂ reduction advice available Green Champions leading local action groups 	<ul style="list-style-type: none"> Quarterly collation of CO₂ emissions for all sources Data externally verified M&T in place for: <ul style="list-style-type: none"> buildings street lighting waste 	<ul style="list-style-type: none"> All staff given formalised CO₂ reduction: <ul style="list-style-type: none"> induction and training communications Joint CM communications with key partners Staff awareness tested through surveys 	<ul style="list-style-type: none"> Finance committed for 2+yrs of Programme External funding being routinely obtained Ring-fenced fund for carbon reduction initiatives 	<ul style="list-style-type: none"> CO₂ friendly operating procedure in place Central team provide advice and review, when requested Barriers to CO₂ reduction routinely considered and removed
4	<ul style="list-style-type: none"> CO₂ reduction commitment in Corporate Strategy Top level targets set for CO₂ reduction Climate Change Strategy reviewed annually 	<ul style="list-style-type: none"> Sponsor reviews progress and removes blockages through regular Programme Boards Progress against targets routinely reported to Senior Mgt Team 	<ul style="list-style-type: none"> CM integrated in to responsibilities of department heads Cabinet / SMT regularly updated Staff engaged though Green Champion network 	<ul style="list-style-type: none"> Annual collation of CO₂ emissions for: <ul style="list-style-type: none"> buildings street lighting transport waste Data internally reviewed 	<ul style="list-style-type: none"> All staff given CO₂ reduction: <ul style="list-style-type: none"> induction communications CM matters communicated to external community 	<ul style="list-style-type: none"> Coordinated financing for CO₂ reduction projects via Programme Board Finances committed 1yr ahead Some external financing 	<ul style="list-style-type: none"> Comprehensive review of policies complete Lower level policies reviewed locally Unpopular changes being considered
3	<ul style="list-style-type: none"> CO₂ reduction vision clearly stated and published Climate Change Strategy endorsed by Cabinet and publicised with staff 	<ul style="list-style-type: none"> Core team regularly review CM progress: <ul style="list-style-type: none"> actions profile & targets new opportunities 	<ul style="list-style-type: none"> An individual provides full time focus for CO₂ reduction and coordination across the organisation Senior Sponsor actively engaged 	<ul style="list-style-type: none"> Collation of CO₂ emissions for limited scope i.e. buildings only 	<ul style="list-style-type: none"> Environmental / energy group(s) given ad hoc: <ul style="list-style-type: none"> training communications 	<ul style="list-style-type: none"> A view of the cost of CO₂ reduction is developing, but finance remains ad-hoc Some centralised resource allocated Finance representation on CM Team 	<ul style="list-style-type: none"> All high level and some mid level policies reviewed, irregularly Substantial changes made, showing CO₂ savings
2	<ul style="list-style-type: none"> Draft Climate Change Policy Climate Change references in other strategies 	<ul style="list-style-type: none"> Ad hoc reviews of CM actions progress 	<ul style="list-style-type: none"> CO₂ reduction a part-time responsibility of a few department champions 	<ul style="list-style-type: none"> No CO₂ emissions data compiled Energy data compiled on a regular basis 	<ul style="list-style-type: none"> Regular awareness campaigns Staff given CM information on ad-hoc basis 	<ul style="list-style-type: none"> Ad hoc financing for CO₂ reduction projects 	<ul style="list-style-type: none"> Partial review of key, high level policies Some financial quick wins made



<p>1 Worst</p>	<ul style="list-style-type: none"> • No policy • No Climate Change reference 	<ul style="list-style-type: none"> • No CM monitoring 	<ul style="list-style-type: none"> • No recognised CO₂ reduction responsibility 	<ul style="list-style-type: none"> • No CO₂ emissions data compiled • Estimated billing 	<ul style="list-style-type: none"> • No communication or training 	<ul style="list-style-type: none"> • No specific funding for CO₂ reduction projects 	<ul style="list-style-type: none"> • No alignment of policies for CO₂ reduction
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* Major operational policies and procedures, e.g. Capital Projects, Procurement, HR, Business Travel

Appendix C: Environmental Change Programme Structure



Appendix D: Stakeholder Engagement

Stakeholder Name / Group	Issues (as identified in questionnaire)	Key Messages	Means of Communication	Timetable	Responsibility
Cabinet	Reputation and protecting services. Re-election	Updates and LAA progress	Keep updated through Lead Member/Cabinet briefing.	Quarterly	Alan Morrison Donna Worship
Corporate Management Team	CAA, LAA, Use of Resources assessment, Reputation, Service delivery, efficiency	Updates, risks and issues, resource implications, efficiencies, LAA target achievements	Briefings and reports from Alan Morrison and Donna Worship	Bi-monthly	AM
Environment Scrutiny	Environmental performance of Council. Challenge Cabinet	Updates	Report to the panel	Annually	AM/DW
Pat Sartoris Head of Strategic Finance	Cost / budgets Under pressure to make efficiency savings	Budget requirements, efficiencies, carbon reduction	Highlight issues to the Finance Board	ongoing	Judith Spence
Staff	Reputation of authority as an employer, efficiency agenda and restructures, 'doing the right thing'	Baseline overview, project proposals, financial savings and carbon reductions	County Green, News for All, Departmental newsletters	Ongoing	DW/Paula Dodd
			CIS – background info	Ongoing	
			Staff survey	September 2009	
			Newsletter item on CMP	June 2009	



Property Services	Designing new build, refurbishment, Facilities Management, Asset Management	Objectives and targets. Seek engagement	Service briefing influencing colleagues, newsletters.	November 2009	LR/AM
			Steve Siddons on Board	Ongoing	
			Invite additional reps to Opportunities Workshop	End Sept 2009	DW
Fleet management	Managing, maintaining and procurement of fleet	Contribution of transport fleet. Invite project proposal	Inclusion in Core Team and Board, Dept newsletters, one-to-one	Ongoing	SS
ICT	Managing, maintaining and procurement of ICT	Contribution of ICT. Invite project proposals.	Inclusion in Core Team, newsletters, service briefing	Ongoing	Wayne Ruddock
Schools	Direct control over large property portfolio	Cost savings from energy efficiency. Invest to Save fund available.	Newsletters, EIS, briefings to Head Teacher and Governor conferences	Ongoing	DW/Neil Aldridge Klyne
			Head Teachers on Board and Core Team.		
Procurement Officers	Procurement of new services and goods	Requirement for specifications and contract clauses on provision of emissions data and carbon management	Include in Core Team, influence and pilot procurement process for CM	Ongoing	James Trotter/DW
Managers	Staff behaviour and information	Change necessary to embed carbon management	Managers Network briefings, Senior Manager conference slot,	Ongoing	DW
Public	Community leadership and reputation	Baseline information and project proposals	Leicestershire Matters and press release	June 2009	DW/AM
Partners e.g.	Sharing best practice,	Experience and opportunities	Brief through Leicestershire Together and LAA Cleaner	Ongoing through LAA	DW/Peter



Districts	leadership	for joint working	Greener group	working group	Williams
Trade Unions	Staff engagement and support	Opportunities and change	Joint campaigns and awareness raising	Consult on draft Carbon Management Plan	DW/AM

Appendix E: Assumptions for financial savings

Financial discount rate	3.5%	percentage (UK Treasury Green Book, 2008)
Inflation rate	2.5%	percentage (working estimate)
"Persistence" discount rate	3.0%	percentage (working estimate)

Emissions source	Cost pence per kWh
Burning oil	1.40
Coal	0.62
Diesel	10.94
Electricity (CHP)	4.50
Electricity (grid)	10.00
Electricity (on site renewables)	0.00
Gas oil	1.40
LPG	1.50
Natural gas	3.50
Petrol	11.30