



Derby City Council

Local Authority Carbon Management Programme

Strategy and Implementation Plan (SIP)

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Approval:



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Approvals

The draft SIP will be presented for comment to Scrutiny Management Commission on 10th April 2007 and for approval by Council Cabinet on 17 April 2007.



Management summary

Improving the environment is one of the Council's core values. Protecting the environment now and for future generations is a strategic priority. We know climate change is the subject of international, national and local concern. The Council as both community leader and service provider has a responsibility to act. In addition to environmental concerns, the rising costs of fuel bring an additional imperative to reduce the use of energy.

One of the Council's corporate priorities is leading Derby toward a better environment by:

- **reducing the level of carbon emissions**
- **raising awareness on climate change**

The Council is committed to reduce carbon emissions by 25% over 5 years. This Strategy and Implementation Plan forms part of this commitment and identifies estimated savings of 15%.

Rising costs of energy have a significant impact on the Council's budget. The electricity contract was renegotiated in autumn 2006 and costs increased by 52%. The gas contract has recently been renewed and the price of gas increased by 15% following a 50% increase in 2005.

The Council's participation in the Carbon Trust's Carbon Management Programme has enabled us, for the first time, to attempt to quantify the carbon emissions we produce, identify areas of where energy data management needs improvement and to develop a plan of action. This plan describes the Council's focus on three themes:

- reducing the environmental impact of the Council's energy consumption
- reducing the environmental impact of the Council's use of vehicles
- decreasing the amount of waste the Council produces

We have developed a range of actions – some short term and low cost, others requiring more significant investment and/or future research. We are actively exploring external funding opportunities to supplement the Council's budget to support the delivery of our plans for example, Salix finance and the Intelligent Energie – Europe (2) programme in April 2007.

The Council's target is to reduce its carbon emissions by 25% by 2011, against a 2005/06 baseline. The carbon dioxide emissions given below have been calculated from the best data available. Energy consumption and emissions have been calculated from energy costs and therefore has inbuilt inaccuracies. The cost data may not include all the Council's sites.

If the Council does nothing in the next five years;

- **it's energy bill could rise from £5.5 million to over £9 million**

If the Council achieves a 5% per year saving in energy consumption then

- **it's energy bill will stay virtually constant at £5.5 million per year**
- **its carbon dioxide emissions will have fallen from 23,000 tonnes to 15,000 tonnes**



The target we have set has the potential to keep the increase in energy costs to a minimum by 2011. Failure to take action is likely to result in energy prices rising to at least £9.0m per annum by 2011.

The Carbon Management Programme will be taken forward as an integral part of the Council's environmental policy and Climate Change Action Programme. We are committed to limiting the environmental impact of our own activity and will use this as a springboard to influence change across City.



1.0 Introduction

Greenhouse gas emissions, particularly carbon dioxide, produced when fossil fuels (coal, oil and gas) are burned, are causing disruption to the global climate – usually called climate change or global warming. This, together with the rising fuel prices, is encouraging organisations to look at their use of energy.

The Carbon Trust was set up to provide guidance and assistance to businesses, local authorities and other organisations to improve energy management and energy efficiency and to increase the use of new technologies, such as solar panels and wind turbines.

The Council was selected, along with other Local Authorities, to take part in the fourth phase of the Carbon Trust's Local Authority Carbon Management Programme (LACMP) in partnership with Derbyshire County Council. The Programme aims to provide a comprehensive process for measuring, managing and reducing the emissions of greenhouse gases produced by local authority activity.

In this plan the Council has included emissions from its buildings (corporate buildings, schools, leisure centres), travel and highways (business travel,) and corporate waste.

A Strategy and Implementation Plan (SIP) has been produced as the first step towards a systematic approach to reduce greenhouse gas emissions produced through Council activity. For the first time, it starts to present a picture of the Council's carbon emissions "footprint" and takes a whole organisation approach towards the cost-effective reduction of emissions, starting with simple short-term actions and looking forward to potential long-term projects and initiatives over the next five years to 2011.

Actions stemming from the SIP will be presented to the Council's Cabinet for approval, as an integral part of the Corporate Climate Change Programme.



2.0 Carbon Management strategy

2.1 Context and drivers

External Drivers

1. Global picture

The phenomena of climate change has now become a mainstream political issue for nation states which have started to 'wake up' to the potential consequences that a changing climate could have on the overall social, economic and environmental stability of the planet. The latest scientific predictions indicate that:

- 40 % of the world's species would face extinction if temperatures rose by 2C.
- currently 200 million people are at risk of being driven from their homes by flood or drought by 2050.
- 4 billion people could suffer from water shortage if temperatures rise by 2C.

2. Rising Energy Costs

Energy prices have risen sharply in the last few years. Despite combining with Derbyshire County Council to increase our bargaining power in 2005 our gas prices increased by 50%. In 2006 our electricity prices increased by 52%. Future price increases are difficult to predict. It's doubtful if it will be possible to actually reduce annual energy costs but the effect of price increases can certainly be minimised by good energy management.

3. EU Energy Performance of Buildings Directive

Around 40% of final energy consumption in the European Community is in the buildings sector. EC research has indicated that by improving energy efficiency, through a range of no-cost or low cost measures and material investment, carbon emissions from buildings could be reduced by 22% on average, delivering a substantial reduction in running costs. The forthcoming Energy Performance in Buildings Directive will require us to label buildings according to their level of efficiency, against a national benchmark level by 2007. We are currently preparing energy certificates for all our schools.

4. Central Government policy including the draft Climate Change Bill, the white paper Strong & Prosperous Communities, UK Emissions Trading Schemes

5. Building Regulations. Require significant changes to how we construct and power our buildings. To meet current building regulations we are proposing to fuel new buildings using bio-mass rather than gas.

6. Rising land fill charges. Land fill tax will rise by £3 per tonne per year to £35 per tonne in 2010.

7. Public and media pressure. In addition to the Stern Review's statements:-

- investment that takes place in the next 10 – 20 years will have a profound effect on the climate in the second half of the century
- a range of actions exists to cut emissions; strong deliberate policy action is required to motivate their take up



Internal Drivers

1. The Council's Corporate Plan 2007 - 2010 includes Care for the Environment as one of six corporate priorities with a specific action of 'providing leadership to tackle climate change'.
2. The Council recognises that its day-to-day activities have an important impact on the local and global environment, and that the health and well being of the environment and ourselves is closely linked. It also acknowledges that it has an important role to play in raising the awareness and understanding of environmental issues within the whole of the community. It is committed to working with others to protect and enhance the environment, especially with those organisations that are represented on the city's Local Strategic Partnership, Derby City Partnership. One of the aims of Derby City Partnership is to develop the city's Community Strategy that sets out, through the development of specific action plans, how the long-term vision for the city can be delivered. One of those plans will deal with action on climate change.
3. The Environment Policy & The Energy Policy. These policies set out to raise awareness of Climate Change, the implications of Council's policies on the environment and encourage strategies that support the reduction of greenhouse gas emissions.
4. Derby Declaration on Climate Change commits the Council, amongst other items to the delivery of the UK Climate Change Programme and its Carbon Dioxide reduction targets and achieving a significant reduction in greenhouse gas emissions from its operations, especially energy sourcing and use, travel and transport, waste production and disposal.
5. Derby Campaign against Climate Change. The Council Leader's signing of the petition and subsequent Council support, committing to reduce its carbon emissions by 25% over the next 5 years. The Council is developing a Corporate Climate Change Action Programme (CCAP). The SIP will form a significant part of that programme.
6. The 7Cs Project - the Council is also committed to raising awareness of climate change throughout Derby City Partnership and the local business community. Derby's 7Cs project has the overall aim of changing the attitudes of employees towards climate change in seven of Derby's largest organisations including Bombardier, Rolls-Royce, Egg, Derby College, Derby University, Derbyshire Building Society and the Council. This project will provide an essential part of our internal communications programme to win the 'hearts and minds' of our employees.

2.2 Vision

To meet the Council's Corporate Priority 'Care for the Environment' by leading Derby toward a better environment :

- reducing the level of carbon emissions
- raising awareness on climate change

To meet this priority the Council will work with partners and the community to change attitudes towards climate change and reduce carbon emissions throughout the City, reduce its overall production of the main gases that contribute to climate change and has set a 5 year carbon emission reduction target to be 25% - at 5% per year.



2.3 Objectives and targets

1. Provide leadership in tackling climate change, educating and motivating local people and organisations and setting an example for others to follow.
2. To raise the profile of carbon management at all levels to ensure that it becomes fully integrated into the Council's corporate management and performance systems.
3. To raise awareness and understanding throughout the Council of the impact of our own operations on carbon emissions and climate change, and encourage these and others to reduce their carbon emissions
4. To implement energy saving/carbon reduction projects.
5. Develop clear and effective monitoring systems for carbon emissions across those activities which have the greatest impact.
6. To use the monitoring systems to measure and regularly report on emission reductions, and provide reports to all stakeholders

2.4 Strategy

The aim of the project is to form a component part of the Council's Climate Change Action Programme (CCAP), which includes the following stages

1. Developing a corporate management and reporting structure to ensure that the project is considered and sustained over time as a key issue, and that all departments commit resources to help achieve or even exceed the Council's overall 25% target. **This is the key component of the project at this stage.**
2. Undertaking sufficient research to help provide a baseline for where we are starting from in order to accurately assess the progress made in this area over the next 5 years.
3. Developing (based on 2 above), a comprehensive action programme of short, medium and long-term projects that contribute to achieving this target.
4. Developing a comprehensive communications programme to help win the 'hearts and minds' of employees so that everyone is both informed and motivated to play a role in this area.
5. To seek external funding to supplement the resources of the Council to implement energy saving projects.
6. Challenging the way local government is able to fund capital-intensive energy efficiency projects with longer-term payback periods to both help the environment and save money in keeping with the findings of the Stern Review.

2.5 Scope;

The project will cover the Council's activities that are subject to the direct management control of the organisation, for example, energy used in the heating of the Council's main buildings,

In learning from best practice from elsewhere along with the experiences of the carbon management programme, the project will initially focus on



- Energy Services - looking at the energy efficiency of the Council's accommodation and other key buildings including schools.
- Transport - mainly including the areas of staff travel and the Council's own vehicle fleet.
- Waste & recycling – assessing the potential financial and carbon savings that can be made through improved management of our waste.

This is not an exhaustive list but it provides the focus for the Carbon Management Programme.

To ensure the project proceeds and maintains its momentum in conjunction with the CCAP (internal drivers no. 5) the governances set out in Section 6 will be set up.

Projects, their progress and achievements will be monitored by the CCAP Project Board, Scrutiny Management Commission and Council Cabinet.



3.0 Emissions baseline and projections

3.1 Scope

We have collected the best possible data for

- buildings,
- business mileage
- vehicle fleet fuel consumption.
- internally generated waste,

However some of the data, particularly energy data, needs to be made more robust. One of the most important tasks to be undertaken is to improve the quality of the data. Collection of accurate information for all sites on the Utility contracts and the calculation of precise benchmarks is a priority for the Programme.

We have data for street lighting but this area is currently going through major changes and will eventually be a PFI scheme. It has not been included in the baseline figures.

We have little recent data for staff commuting and no data has been included in the project.

3.2 Baseline

This section sets out the baselines for each section and gives more detail on the limitations and shortcomings of the data that has had to be used.

1. Consumption in Buildings

The consumption figures used have been calculated from the energy costs reported by the Councils accounting system. They have not been taken from actual meter readings. In calculating the energy consumption the unit cost of energy has been approximated for all sites. The data includes the majority of the Council's sites. Schools included are only those on the Council's energy contract.

2. Business travel

The Council operates a system that enables staff using private cars for business travel to claim an allowance for each mile travelled. Details were taken from the database that holds this information.

The actual distance claimed over the base year (2005/06), 3.2 million miles was a surprise considering most of the travel is within the City of Derby – approximately a 10 mile diameter.

3. Staff Commuting

We have little recent data on staff commuting. It is, however, a target that staff are surveyed and the commuting mileage be brought into the programme.

4. Waste

The volume of waste collected over a year from City sites, includes schools who have opted for their waste to be collected by the Council service. It proved difficult to assess weight – the density of the waste collected was not known. It will be a medium term aim to determine the best way of estimating the weight of the waste collected.

5. Overview

Figure 1, based on data collected and within the limitations described previously, shows the emissions breakdown by sector. Nearly 80% of the emissions are generated from the use of energy in the Council estate and more than half is from schools.

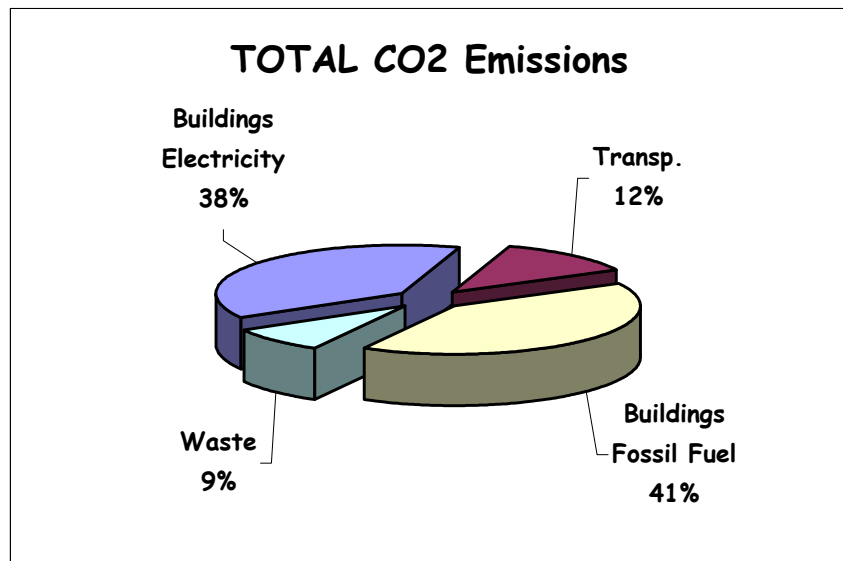
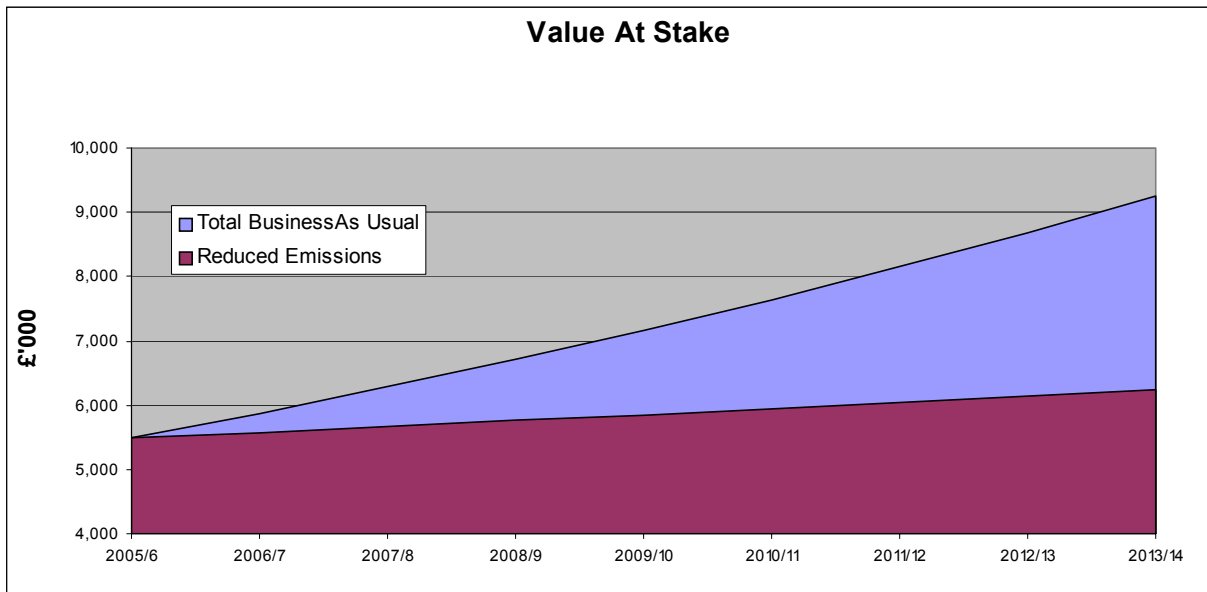


Figure 1 Breakdown of carbon dioxide emissions

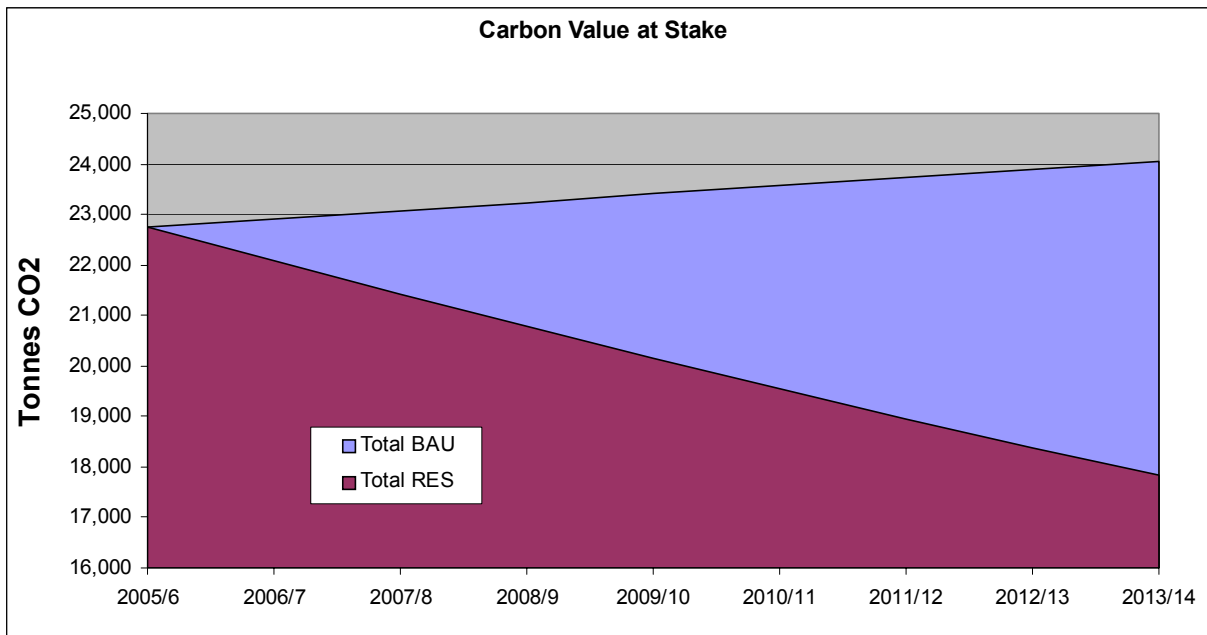
3.3 Projections - Energy Costs and Carbon Emissions

- The business as usual (BAU) projection is based on gas and electricity price increases of 3.5% pa and fuel price rises of 3.6% pa
- The reduced emission scenario (RES) is based on a gas and electricity reduction of 3% pa and a reduction in diesel use and business mileage of 1.5% pa.

The Total Projected Savings in Cost and Carbon are Represented in the diagrams below.



Emission reductions use the same assumptions as the fuel predictions.





If the Council does nothing in the next five years;

- **it's energy bill could rise from £5.5 million to over £9 million**

If the Council achieves a 3% per year saving in energy consumption then

- **it's energy bill will have risen to £6.2 million per year**
- **its carbon dioxide emissions will have fallen from 23,000 tonnes to 18,000 tonnes**

The Council's overall target is to reduce its carbon emissions by 25% by 2011, against a 2005/06 baseline.

3.4 Past actions and achievements

The Council has been making progress in energy conservation in recent years:

- Energy Group Leader for three years whose prime aim has been to raise the profile of energy management within the Council, improve energy efficiency in design, maintenance and management of buildings.
- Green Team for nine years, the Team with representatives of all Departments aims have been to raise both energy and environmental issues at all levels as well as providing a Green Work Guide giving guidance on good energy and environmental practice in the office. The Green Team carried out a 'good housekeeping' campaign including leaflets and stickers to encourage staff to save energy in 2005.
- Capital programme of £120,000 for each of the last two years funded through prudential borrowing for energy saving schemes. Projects have included a major relamping at an indoor market, voltage regulators at two 24 hour car parks, lighting control schemes and several insulation projects giving short payback periods.
- Procurement strategy has recently been written. The strategy requires that procurement is sustainable and has minimum impact on the environment and supports local businesses.
- Planning and Environment Commission carried out a review of the Council's energy use in 2006 and made recommendations to Cabinet, for example, that action be taken to ensure all Council directorates are fully engaged in the Carbon Management Programme and that the Council investigates the possibility of locally generating energy
- street lighting has been using green energy for approximately 2 years.
- *ErBAN project* — the aim of this European funded project is to raise the energy efficiency and reduce the carbon emissions of businesses in the Normanton area.
- *Schools Conference - Climate Change Workshop* — this conference was aimed at teachers looking at the Citizenship agenda. In the afternoon a workshop was held to provide teachers with a range of ideas on how to bring climate change into the classroom.



- Housing: the Council completed its Decent House Programme in 2006 and has had a significant programme of improving the energy efficiency of its housing stock since the early 1980s

4.0 Carbon Management Implementation Plan

Current knowledge of consumption and waste, particularly consumption and waste of energy is poor. One of the early aims of the plan is to establish more accurate benchmarks by improving the collection and management of information. The TEAM Energy Bureau Solutions service has been engaged to assist this process.

We have just started engaging schools in the carbon management process. A consultant is currently surveying all our schools and has produced energy benchmarks and energy certificates from the Energie-Cites web site. One of the most important marketing tasks is to continue that engagement and, combining it with the TEAM Bureau, begin the process of enabling schools to improve their carbon management. That process will start with a presentation to headteachers to highlight a schools performance and introduce the energy certificates, the LA Carbon Management Programme and provide information to allow them to improve that performance.

4.1 Shortlisted actions and emission reduction opportunities

The actions listed below are not intended to be a complete list. When the data management and monitoring system is set up there may be many more as yet unidentified opportunities for savings.

1. Project Management.
 - The programme will form part of the CCAP which will be managed under Prince 2 principles. A Project Board will be established to monitor progress and drive that initiative forward.
2. Good Housekeeping and Education
 - Council's Energy Conference – this will be targeted at key Council employees and will bring together the themes of energy conservation and climate change. One of the main objectives of this event will be to identify ideas for reducing energy use.
 - eBrief 'special' on climate change– this internal environmental information bulletin, which is mainly targeted at Council employees and Elected Members, will contain a wealth of informative articles on climate change and energy saving measures.
 - Energy training to be part of the induction course for new employees. On going in-house general and department specific staff training and marketing campaigns to make attitudinal changes to all staff.
 - Engagement of schools. Schools have their own budgets and so are 'independent' of the Council. Schools 'buy in' to services offered by the Council. Schools will be targeted through headteachers and governors to improve their energy and waste Implementation plans. Schools will be encouraged to register with the ECO schools project.
3. Data Collection
 - Use of TEAM Bureau system to provide
 - consumption benchmarks for all sites,
 - accurately establish a baseline against which improvements and savings can be measured
 - use the benchmarks to identify both good and poor performers
 - monitor and measure savings.
 - consumption reports to target poor energy performers
 - information to produce 'Energie- Cite' posters,
 - data to target energy surveys at high energy users.



4. Projects

- insulation to plant rooms, exposed pipework etc, roofs, cavity walls
- lighting controls, and conversion of T8 fluorescent tubes to energy efficient T5
- review of heating system controls. Extend the existing TREND building energy management system to other sites identified as high users by TEAM.
- time switches to printers etc
- conversion of all tumble driers at Homes for Older People to gas firing
- installation of voltage reduction systems at all over 100kW and high using sub 100kW sites.

5. Business Travel

- training of all fleet vehicle drivers
- 'Greening the Fleet' – a project with the Energy Saving Trust
- Use of bio-fuels

6 Staff Commuting

- There are plans to provide a Green Travel Plan. The Plan will consider reduced price bus passes or season tickets for commuting and the opportunity for cyclists to lease and then buy new bikes.

6. Procurement

- A new procurement strategy to support the procurement code has recently been written and approved.



4.2 Implementation Plan Summary

The opportunities to reduce emissions can be grouped under the following headings with further details as appropriate. They address the objectives stated in 2.3. Further details are given in Appendix A.

Reducing the Environmental Impact of the Council's Energy Consumption				
Action	Date	Funding	Summary	Objective and Owner -
No and low cost actions				
Project Management				2.3.1 2.3.2 2.3.3
Set up Project Board for Climate Action Change Programme driving the initiative and report progress	As soon as possible	Minimal	Project management board to be established under Prince 2 principles.	Environmental Co-ordinator
Staff engagement;				2.3.2 2.3.3
New staff induction course to include energy section.	As soon as possible		Tell new staff of Energy Policy, the SIP, achievement and what they can and will be expected to do	Energy Group Leader
In House energy conference	March 2007	Scrutiny Management commission	Conference targeted at members, and staff at all levels	Scrutiny and Complaints Manager
'Save It' day	October 2007	Minimal	Staff encouraged to switch off equipment. lighting, heating when not in use. Monitoring of savings.	Energy Group Leader
Training programmes tailored for each department eg libraries, leisure centres, APH	Commence 2007 and ongoing with two yearly refreshers	In house staff time plus approx £1000 per course.	Courses to be half day and tailored to each department. Courses will be walk round in relevant buildings	Energy Group Leader
Engagement of schools. Initial targets will be Headteachers and Governors.	Autumn 2007		Target head teachers at routine meetings. Write to Chair of Governors	Energy Group Leader HoS Children & Young People
Commence European Energie Cite 'Display' programme	Ongoing		Use existing data to create large energy performance posters for as many public buildings as possible. Schools to be included	Energy Group Leader
Appointment and training of energy wardens and setting up of an informal energy champions network	Sept 2007		Wardens to manage and monitor 'good housekeeping' and be able to identify and report any carbon issues.	Energy Group Leader



Reducing the Environmental Impact of the Council's Energy Consumption

Action	Date	Funding	Summary	Objective and Owner -		
No and low cost actions						
Commencement of comprehensive monitoring and targeting programme.	Alongside setting up of TEAM Bureau		To include monitoring and targeting of waste, & travel by department.	2.3.5 Energy Group Leader		
Actions requiring investment from invest to save, SALIX or prudential borrowing						
Action	Date	Funding	Summary	Objectives and Owner		
TEAM Bureau				2.3.6		
Set up and use of TEAM bureau to improve invoice and energy data management and calculate benchmarks	April 2007	In house. £25,000 pa initially funded from saving	TEAM will allow electronic invoice management and data checking. Energy consumption directly from invoices will, be use to provide benchmark consumption	Energy Group Leader Head of Procurement		
Detailed energy surveys of buildings with poor benchmarks calculated from the TEAM bureau	As soon as TEAM Bureau data identifies	In house	Once TEAM bureau set up will be ongoing. Target all sites surveyed every 5 years	Energy Group Leader		
Projects				2.3.4		
Improve pipework and valve insulation	Ongoing	In house, Salix and invest to save	Sites selected from TEAM Bureau benchmarks	Energy Group Leader		
Lighting controls	Ongoing					
Gas fired tumble driers at HOP's	2007/2008					
Conversion of T12 & T8 fluorescent lamps to T5 HF	Ongoing					
Cavity wall insulation	Ongoing					
Roof insulation	Ongoing					
Heating system controls	Ongoing					
Powerperfactor to large sites	2006/2010				Limited to over 100kW sites	Energy Group Leader
Investigate renewable energy – wood fired boilers	2007/08					2.3.4 Energy Group Leader



Reducing the Environmental Impact of the Council's Energy Consumption

Action	Date	Funding	Summary	Objectives and Owner
Projects (Cont'd)				2.3.4
Time clocks to all printers, photocopiers etc	2007	In house		Energy Group Leader
Feasibility study for solar water heating to HOPs	Ongoing	In house	Initial study for two homes. If feasible then extend to all other homes	Energy Group Leader
Small scale hydro powerstations on the Derwent	Feasibility study in-hand. Completion expected April 2007	In house		Energy Group Leader consultants
Large wind turbines	Preliminary discussions taking place.	To be decided		TBA

Reducing the Environmental Impact of the Council's Vehicle Fleet

Action	Date	Funding	Summary	Objectives and Owner
Driver training	Throughout the year	In house	400 drivers	2.3.3 Fleet Manager
Use of Bio fuels - ethanol E95?	2008		Trials required	2.3.4 Fleet Manager
Working with the Energy Saving Trust – 'Greening the Fleet'	2007/08	FOC	Energy Saving Trust to provide consultant who will review all aspects of the vehicle fleet and put forward recommendations to improve fleet efficiency and energy consumption.	2.3.4 Fleet Manager



Reducing the Environmental Impact of the Council's Business Travel				
Action	Date	Funding	Summary	Objectives and Owner
Raise awareness of emissions from vehicles	2007		Staff conference and in house promotional campaign	2.3.3 Fleet Manager Energy Group Leader
Change to T&S form to include carbon emission from vehicle for claim period	2007		Link to new electronic accounting system. T&S forms to include a CO ₂ emission column. All claims for car mileage must have the section completed.	2.3.3 TBA
Use of pool cars	2007/08		Investigate feasibility of use of pool cars	2.3.4 TBA
Provision of electric cycles	2007/08		Promotional campaign to encourage use. Training	2.3.4 TBA

Reducing the Environmental Impact of the Council's Commuting				
Action	Date	Funding	Summary	Objectives and Owner
Green Travel				2.3.2
Survey on methods of commuting	2008		Determine methods of commuting, why that method is chosen and what it would take to change	TBA
Green travel plan – for staff	2008/09		Various initiatives to be considered	



Reducing the Environmental Impact of the Council's Waste				
Action	Date	Funding	Summary	Objectives and Owner
Audit of waste generated by each Department & development of method of weighing waste generated	2007 onward		Set up detailed audit of waste streams by dept. Set benchmarks for departmental waste by type eg quantity of paper, card, plastic, wood	2.3.3. 2.3.4 Waste Manager
Set up paper collection to be re-used as scrap pads	2007		Set up collecting points in each office for paper used on one side. Audit single sided use of paper. Collect paper and form into scrap pads. Stop purchase of A4 lined paper	2.3.3 2.3.4 Waste Manager
Set up methods to determine quantity of paper purchased. Paper use to be accounted for by Department	2007/08		Review purchasing and accounting for paper, cardboard etc. Accurately determine how much is purchased and who uses it.	2.3.3 Waste Manager
Increase number of paper recycling bins	2008		Reduce the number of grey bins increase the number of green paper recycling bins to encourage paper recycling	2.3.3 2.3.4 Waste Manager
Investigate energy from waste – shredding of all non-compostible and non-recyclable waste as fuel	2009/10		A long term project to reduce the Council's dependency on gas.	2.3.4 TBA



5.0 Implementation Plan financing

The summary below sets out the estimated project spend and emission reduction targets. The table is indicative because of uncertainties;

- about fuel prices.
- over the scope of works that can be carried out , particularly in schools, and their cost and benefits.
- over the uptake of renewable energy

Many of the projects outlined are dependent on attitudinal change and financial discussion. Both items are already being and will continue to be actively pursued by the Council.

We have four funding sources –

- internal prudential borrowing,

Prudential Borrowing allows the authority to borrow to a level it feels is affordable outside of the normal government approvals for borrowing (hence the phrase unsupported borrowing, not supported by Government), which takes the form of Supported Capital Expenditure (Revenue) (SCE (R)). The financing costs are then charged to the Treasury management budget for corporately financed projects and to the relevant departmental revenue accounts for the departmental spend to save projects.

A business case/option appraisal to determine whether the project is financially viable, reasons for the project, sources of funding and future revenue implications to be prepared. The case must establish whether or not prudential borrowing will be required, and whether there will be any future revenue saving as a result to pay for or contribute to the financing costs

- capital programme with matched funding from SALIX. The application for SALIX funding is in hand. The fund is 'ring fenced' and must be dedicated to implementing energy efficiency and renewable energy projects through interest free 'loans'. The loans are repaid to the fund over a period agreed with the host site using a minimum of 75% of the annual savings. Once the loan is repaid the project recipient will continue to benefit from the ongoing energy saving.
- 'invest to save' The financial case for the project and savings it can make has to be made. The department benefiting from the projects will have to repay the funding from the savings made.
- Other sources as they become available eg the EU

Whilst the data on which the following costs and savings have been based is the best currently available it is from a variety of sources, calculations and published good practice information. The figures are therefore a best estimate of what can be achieved. Once we have better quality data and accurate benchmarks (section 3) the sites to be targeted and savings to be made will become more accurate.

Potential Corporate Savings (excluding schools)

Total Estimated Capital Expenditure		£500,000			
Total Annual Cost Savings £420,000					
	07/08 savings	08/09 savings	09/10 savings	10/11 savings	11/12 savings
Annual savings (£)	30,000	100,000	120,000	85,000	85,000
Total Annual Carbon Reduction 4,850 tonnes					
	07/08 savings	08/09 savings	09/10 savings	10/11 savings	11/12 savings
Carbon Reduction (tonnes)	500	950	1400	1000	1000

The Summary table above excludes potential savings from schools. Schools consume 52% of the electricity and 48% of the gas used by the Council. Savings potential is therefore considerable. An estimate of the savings to be made is set out in the table below;

Potential savings in schools – subject to further investigation

Technology	Potential Saving %	KWh Saving per year	CO ₂ saving kgs /year	Cost Saving/ year	Estimated cost /school	Total cost	Payback Years
Building Management Systems and automatic meter reading for poorest 32 schools	5	1,500,000	387,000	£50,000	£2,500	£80,000	
Conversion of T8 lamps to T5 (all schools)	20	2,400,000	1,032,000	£175,000		£310,000	
Timewitches to Printers and photocopiers (all schools)	5	550,000	236,000	£40,000	£50	£4,500	
Insulation to pipework & valves in poorest 32 schools	10	2,400,000	456,000	£45,000	£1500	£48,000	
Fabric Insulation in poorest 32	5	1,100,000	209,000	£24,000	£2000	£64,000	
TOTAL		7,950,000	2,320,000	£334,000		£505,500	1.4

Splitting the cost and benefits equally over a 5 year period gives;

Potential annual savings	1,590,000 kWh
CO ₂ reduction	464,000 kgs
Cost saving	£66,800
Cost of Works	£101,100



Summary of predicted costs and savings schools only

Total Estimated Capital Expenditure		£505,500			
Total Annual Cost Savings £332,000					
	07/08 savings	08/09 savings	09/10 savings	10/11 savings	11/12 savings
Annual savings (£)	10,000	66,800	80,000	95,200	80,000
Total Annual Carbon Reduction 2,300 tonnes					
	07/08 savings	08/09 savings	09/10 savings	10/11 savings	11/12 savings
Carbon Reduction (tonnes)	70	470	550	660	550

This is not an exhaustive list but it does provide a focus to this all-encompassing project where real and measurable improvements can be made.



6.0 Stakeholder management and communications

6.1 Stakeholder management

Effective communication with all stakeholders is fundamental to the success of this plan. Stakeholders must become committed to the project and that commitment must be cascaded down the organisation. Carbon management will become part of the day to day business of the Council.

The following is a list of stakeholders and it summarises our approach for gaining their support and raising awareness of and commitment to carbon management.

Stakeholders	Aim of communication	Activity
Cabinet and Council	<ul style="list-style-type: none"> • Drive attitudinal change from the top • Raise the profile of carbon management 	<ul style="list-style-type: none"> • Cabinet briefing • Portfolio holder briefings • Set up regular reporting method
Scrutiny Commission	<ul style="list-style-type: none"> • Assist in driving the programme 	<ul style="list-style-type: none"> • Periodic reports and monitoring progress
Climate Change Project Board	<ul style="list-style-type: none"> • To drive the programme • To monitor performance progress and savings. 	<ul style="list-style-type: none"> • Regular reports
Chief Executive and Directors	<ul style="list-style-type: none"> • Departmental champions of carbon management • Set departmental carbon targets. 	<ul style="list-style-type: none"> • Launch awareness campaign
Heads of Service, Building Managers, Group Leaders Team leaders	<ul style="list-style-type: none"> • Local leadership • Liaise with building energy champions 	<ul style="list-style-type: none"> • Reporting through team meetings
Building Energy Champions	<ul style="list-style-type: none"> • To provide link between staff, building managers, management team and energy manager 	<ul style="list-style-type: none"> • Spotting energy waste, energy bad practice in their place of work. • Encourage good practice and change attitudes.
All Staff	<ul style="list-style-type: none"> • Change behaviour in the office • Address energy myths 	<ul style="list-style-type: none"> • Staff training • Green Team • Awareness programmes • Energy champions • Regular articles in in house publications
Schools	<ul style="list-style-type: none"> • Engage heads and governors • Provide accurate consumption & cost information • Highlight links to the curriculum • Address energy myths • Involve students in energy monitoring 	<ul style="list-style-type: none"> • Headteachers meetings • Articles in Education publications • Create league tables – best to help poorest • Caretaker training – awareness • Encourage Eco Schools



6.2 Communications Plan

Aims

The purpose of this communications strategy is to highlight carbon reduction and other greening initiatives for the Council in a way which engages staff. The outcome of this strategy will be to educate staff and embed environmentally sound practices into the day-to-day and strategic operations of the Council.

- To raise awareness of the LACM project
- To provoke activity to reduce carbon emissions

Objectives of the communication strategy

The strategic objectives of the Carbon Management Programme are set out in paragraph 2.3:

To assist in achieving these, the objectives of the Communication Strategy are to :

- establish a clear shared understanding of the Programme's vision and goals
- generate enthusiasm for carbon management and therefore help the Programme to secure necessary resources
- keep the Programme in touch with changing priorities
- enable early recognition of risks and issues so that Programme plans can be adapted where appropriate
- ensure accurate information and guidance are provided at the right time
- ensure that decisions are based on accurate information
- improve readiness for change amongst staff that may be impacted by the carbon management programme, through changes to working practices etc.

Further details of the Communications Plan are given in Appendix B



7.0 SIP governance, ownership and management

7.1 Main roles and responsibilities

To ensure the carbon management programme progresses a clear governance structure needs to be set out. The proposed structure is set out below. This group will monitor the overall performance of the plan. It will report successes and difficulties to Cabinet, SMC and Chief Officer Group via the Climate Change Action Programme Project Board.

Carbon Management Implementation Plan: Governance.

LACMP Core Group

Elected Member Sponsor	Councillor Dave Roberts	Deputy Leader and portfolio holder for energy
Management Sponsor	Chris Edwards	Assistant Director Corporate and Adult Social Services
Senior Officer Energy	Neil Norwood	Energy Group Leader
Climate Change Board	Andy Hills	Team Leader Climate Change Action Programme
Senior Officer Waste	Malcolm Price	Waste Manager
Senior Officer Vehicle Fleet	Richard Kniveton	Fleet & Depot Manager
Senior Officer Commuting & Transport	Tony Gascoigne	Traffic Control Engineer
Senior Officer Finance	David Blake	Services Management Accountant
Senior Officer Communications & Publicity	Andrew Auld	Head of Communications and Consultation

In conjunction with the Carbon Management Plan it is proposed to develop a Corporate Climate Change Action Plan. The LACMP core group will work as part of the Climate Change Action Plan team. The relationship between the LACMP and the Climate Change Action Plan governance is set out in para 7.2

7.2 Climate Change Action Programme

The project will cover the Council’s main activities in terms of both direct and indirect aspects. Direct aspects are subject to the direct management control of the organisation e.g. energy used in the heating of the Council’s main buildings, whereas indirect aspects are those areas where the council may not have full management control e.g. the environmental behaviour of suppliers and customers.

In learning from best practice from elsewhere along with the experiences of the carbon management programme, the project will initially focus on the following main areas:

Transport - mainly including the areas of staff travel and the council’s own vehicle fleet.

Energy Services - looking at the energy efficiency of the Council’s accommodation and other key buildings including schools.



Planning and regulation - looking at the pro-active and regulatory role of the Town Planning and Building Control systems in helping to reduce the impact of new and existing developments.

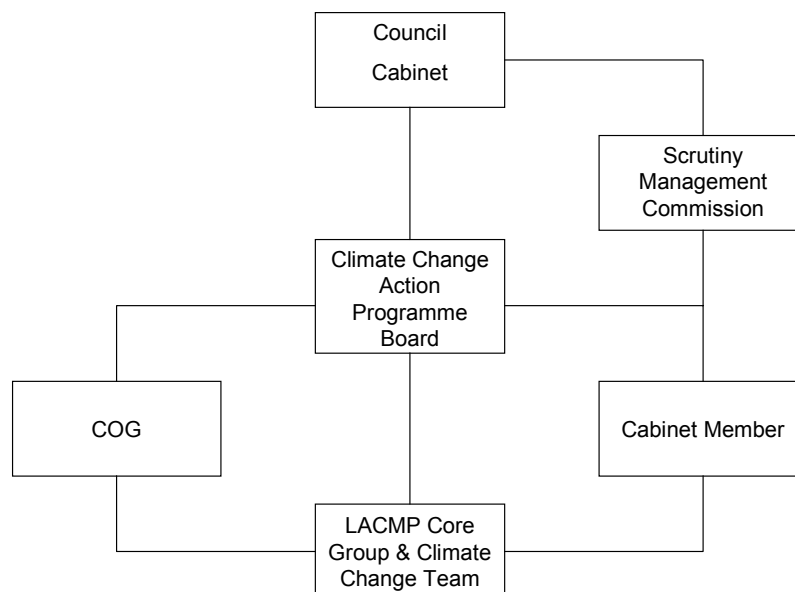
Procurement – assessing the potential carbon savings that can be made through purchasing goods and services.

Education and promotion City wide – this area essentially cuts across all the others by providing the necessary information and motivation to help ‘win the hearts and minds’ of our employees and others throughout the City.

- EnviroLearn - this free, adult education environmental programme will focus on climate change through a series of modules visiting areas of specific interest in and around Derby. Delegates that complete the course will be encouraged to become local Climate Change Champions with the task of inspiring and motivating others to take positive action in this area.
- Eco-Fest 2007 — this high profile event, which normally attracts approximately 10,000 people, will major on climate change and what the individual can do to reduce their own carbon footprint. This will provide a high profile ‘shop window’ to demonstrate the Council’s commitment in this area.
- Derby’s 7Cs programme. Is a partnership between the Council and local businesses committed to raising awareness of climate change. The project has the overall aim of changing the attitudes of employees towards climate change in seven of Derby’s largest organisations including Bombardier, Rolls-Royce, Egg, Derby College, Derby University, Derbyshire Building Society and the Council.

This is not an exhaustive list but it does provide a much-needed focus to this all-encompassing project where real and measurable improvements can be made in a finite number of areas.

7.3 Climate Change Action Plan and SIP - Governance





7.4 Reporting and evaluation

The Carbon Management Programme will form a significant part of our Environmental Policy. The setting and achieving of targets is thus very important. Monitoring and reporting performance is essential to keeping the programme on track and maintaining the programme's high profile.

- Responsibility for monitoring performance of the plan will lie with the core group set out above. It will report to Climate Change Board and Chief Officer group
- The plan, targets, achievements will be regularly reviewed by the group and the CCAP Board. Changes will be written into the plan, included in the programme with costs and CO₂ reductions. Problems and failures will also be reviewed and changes to methods of working, targets procedures will be agreed to overcome them.
- Successful projects will be documented and reported to the entire group. The project and its benefits will be reported to cabinet, Scrutiny Management Commission and Chief Officer Group. Internal publications will carry articles explaining the projects, savings made and naming the group that achieved the savings. The local press will be made aware of the works, their costs and environmental benefits.



Appendix A: Individual actions

Project / Action 1: Awareness Campaign. To deliver corporate environment and energy policies, carbon management programme and climate change action programme	
<i>Description and notes</i>	<p>Staff awareness of these policies and programmes is key to their success. We already have publicity material throughout our buildings and we have recently carried out a staff survey to find out current attitudes to the environment, climate change etc. Once the survey results are known an awareness campaign will be designed. Courses will be tailored to each department.</p> <p>Staff awareness will be included in the new staff induction course.</p>
<i>Quantified costs and benefits</i>	<ul style="list-style-type: none"> Increasing staff awareness is usually credited with reducing energy consumption by 5 – 10%. A 10% saving would save 2,500,000 kWh of electricity and 3,500,000 kWh of gas. Emission reductions would be 1,800 tonnes Savings in gas cost would be £70,000 pa and electricity £187,000 Payback period will be very short - possibly less than one year.
<i>Resources</i>	Funding for initial launch will come via Scrutiny Management Commission. Thereafter Green Team will manage project
<i>Ownership and accountability</i>	<ul style="list-style-type: none"> Environment Team
<i>Ensuring success</i>	<p>Principal Risks Senior management not willing to release staff. Lack of interest from staff</p> <p>Risk Mitigation Support from members and directors publicised and cascaded down to senior management Targeted marketing</p>
<i>Performance / success measure</i>	Monitoring of energy consumption in buildings whose staff have attended training courses
<i>Timing</i>	Ongoing with refresher courses as required
<i>Sources of information and guidance</i>	GPG084 Managing and Motivation Staff to Save Energy GPG085 Energy Management Training Carbon Trust – Creating an Awareness campaign Energy Saving Trust – Energy awareness in schools – several publications



Project / Action 2: Development of Energy Champions network	
<i>Description and notes</i>	Evidence from site visits suggests a strong interest in energy/environmental management at grass roots level across all types of Council buildings. The development of energy champions will foster and enable this interest and allow it to achieve measurable improvements in our environmental/energy performance. After the initial awareness programme volunteers will be invited to join the champions. Further training may be necessary. 'Welcome' packs will be issued to champions. Packs will provide energy saving information and guidance.
<i>Quantified costs and benefits</i>	<ul style="list-style-type: none"> • Possible cost for further training. Funding requirement will be minimal • Savings and benefits are accounted for in action 1
<i>Resources</i>	<ul style="list-style-type: none"> • Internal resources
<i>Ownership and accountability</i>	Energy Manager
<i>Ensuring success</i>	<p>Principal Risk Staff and management inertia Without success and good feedback champions may become disillusioned</p> <p>Risk Mitigation Ensure champions are engaged – reward success, maintain interest - by involving champions in publicity</p>
<i>Performance / success measure</i>	Reduction in energy consumption in buildings with champions Increased staff awareness in energy/carbon management
<i>Timing</i>	Launch date to be decided probably Mid 2007
<i>Sources of information and guidance</i>	As Action 1



Project / Action 3: Introduction of energy monitoring and targeting programme	
<i>Description and notes</i>	<p>One of the poorest aspects of our energy management is the collection and management of consumption data. We are currently setting up an electronic billing system that will provide invoice validation and billed consumption data. We intend to extend this to automatic meter reading and the use of suitable software to allow accurate detailed benchmarking and performance graphs to be provided.</p> <p>Consumption data and trend graphs will be made available to site managers for their sites</p> <p>The departmental director/assistant director given responsibility for the energy performance of their department will receive, initially 6 monthly, but eventually quarterly, reports on the performance of all buildings.</p>
<i>Quantified costs and benefits</i>	<ul style="list-style-type: none"> • M&T does not, in itself, reduce consumption. It does, however, allow the identification of poorly performing sites, the monitoring of the effect of staff training, energy champions and energy saving capital/revenue projects. • It is intended to roll the programme out over several years. Sites will be targeted by service and by use/savings potential eg £/tonne CO₂ saved • M&T will identify savings the value of between 5 and 10% of the current energy consumption ie 6,000,000kWh.
<i>Resources</i>	<ul style="list-style-type: none"> • Internal
<i>Ownership and accountability</i>	Energy Manager
<i>Ensuring success</i>	<p>Principal Risk Lack of appreciation of what M&T can achieve Difficulty raising funding Insufficient staff time to use the M&T effectively</p> <p>Risk Mitigation Good publicity and marketing to show what can be achieved Good reporting structure</p>
<i>Performance / success measure</i>	Improved data produced identifying high energy use buildings /potential for savings
<i>Timing</i>	Launch to be decided
<i>Sources of information and guidance</i>	



Project / Action 4: Engaging all schools	
<i>Description and notes</i>	<p>Schools currently contribute 51% of the carbon emissions from our buildings.</p> <p>Other than actions taken within each school eg ECO schools, there is no energy management policy at schools. Approximately 29 schools in Derby City are registered with the ECO schools programme.</p> <p>One of the primary aims within the first 6 months of this programme is to engage schools, headteachers governors, staff and pupils. It is not the intention of this action to carry out energy saving projects. The purpose is to make schools aware of the cost, both financially to them and to the environment, and show them what can be done.</p>
<i>Quantified costs and benefits</i>	<p>Costs will be mainly staff time attending meetings with heads and governors</p> <p>Minimal cost to produce information packs.</p>
<i>Resources</i>	Internal
<i>Ownership and accountability</i>	<p>Energy Group Leader</p> <p>HoS Children & Young People</p>
<i>Ensuring success</i>	<p>Principal Risk Lack of interest from headteachers and governors.</p> <p>Risk Mitigation Good publicity and marketing to show what can be achieved</p>
<i>Performance / success measure</i>	<p>Schools interest in ECO-SCHOOLS</p> <p>Energy consumption</p>
<i>Timing</i>	Engagement to start immediately SIP is approved
<i>Sources of information and guidance</i>	<p>Energy Saving Trust - energy management in schools</p> <p>DFES web site and publications</p>



Project / Action 5: Insulation survey s for all buildings	
<i>Description and notes</i>	Little is known or documented about the state of insulation in any of our buildings. It is proposed to survey each departments buildings and produce reports detailing the state of roof insulation, cavity wall insulation and heating and hot water pipework insulation
<i>Quantified costs and benefits</i>	Improving insulation is generally accepted as offering a saving of approx 10% in a buildings heating energy consumption
<i>Resources</i>	Use of consultants to survey all buildings. Schools and Social Services already in hand.
<i>Ownership and accountability</i>	Energy Manager
<i>Ensuring success</i>	
<i>Performance / success measure</i>	Number of buildings surveyed against progrmmae
<i>Timing</i>	Programme to run over 12 – 18 months
<i>Sources of information and guidance</i>	



Project / Action 6: Powerperfector installed at all over 100kW sites and large sub 100 sites	
<i>Description and notes</i>	Powerperfector is a device that regulates voltage, harmonics and phase balance. It is not a basic voltage regulator. The device sits between the main site meter and the main switchgear. Savings are claimed to be of the order of 10% It has no effect on sensitive items such as IT equipment
<i>Quantified costs and benefits</i>	The equipment is being trialled at one site. If savings prove to be as expected the unit will be installed at all over 100kW sites. Cost for the trial site is £15,000. Projected savings for this site are £6,400 and 87,000kWh per year. Emission reductions would be 37,000 kgs Similar projections for all 20 over 100kW sites give - cost approx £300,000, savings £62,000, 840,000kWh, CO ₂ 361,000 kgs per year
<i>Resources</i>	Prudential borrowing for initial trial, prudential borrowing or SALIX funding matched by the Council for the remainder
<i>Ownership and accountability</i>	Energy Manager
<i>Ensuring success</i>	Risk Resistance to new technologies Suitability of existing switchgear Mitigation Use the initial trial to market the system
<i>Performance / success measure</i>	Over 100kW sites have half hourly metering available from the internet. Use this to monitor energy consumption before and after Use local data logging to monitor consumption
<i>Timing</i>	If trial proves successful one site every 6 months
<i>Sources of information and guidance</i>	



Project / Action 7: Consider working towards Energy Efficiency Accreditation – a medium term action	
<i>Description and notes</i>	<p>The Energy Efficiency Accreditation Scheme is recognised as the national benchmark standard in energy efficiency. It enables achievement in the management and use of energy to be tangibly recognised, through an award from the leading professional body, the Energy Institute. Accreditation is achieved by meeting set standards that are independently assessed and moderated.</p> <p>The scheme offers:</p> <ul style="list-style-type: none"> • a nationally recognised award for energy efficiency • a means of demonstrating environmental achievement to the public, customers, shareholders and staff • an independent check on energy management systems and practices • guidance from independent assessors on improving energy performance • interim assessments as a check on standards • recognition of good management disciplines • a way of reducing costs - energy efficiency means lower fuel bills • membership of the Accredited Organisations Network, a forum for the exchange of information and for discussion of matters of common interest • receipt of Energy Matters, the newsletter of the Scheme.
<i>Quantified costs and benefits</i>	<p>Financial investment £5,500 initial fees for three years and a reassessment fee of £4,125</p> <p>Carbon saving No inherent saving, though achieving and keeping the accreditation would require increased levels of energy efficiency and the further development of a corporate approach to carbon management</p> <p>Financial saving No inherent saving, though achieving and keeping the accreditation would require increased levels of energy efficiency.</p> <p>Payback period Negligible</p>
<i>Resources</i>	To be determined
<i>Ownership and accountability</i>	Energy Manager
<i>Ensuring success</i>	
<i>Performance / success measure</i>	Reduction in energy consumption across the estate Good PR
<i>Timing</i>	Medium term – 4th year of programme
<i>Sources of information and guidance</i>	



Project / Action 8: Carry out transport and travel review.	
<i>Description and notes</i>	<p>Review transport and travel plan to encourage use of public transport, cycling, car sharing and reduce lone car use. For example;</p> <ul style="list-style-type: none"> • additional bike storage at city centre sites, particularly Council House • additional secure motorcycle parking in the City Centre • space for lockers in offices, drying facilities and better showers • trialing green pool cars and finding car parking spaces • supporting more home working • Review of non city centre sites to consider travel plan needs • Purchase of travel permits • Staff car parking <p>Staff attitudes to be surveyed</p>
<i>Quantified costs and benefits</i>	Funding difficult. There is no payback to the council.
<i>Resources</i>	In house
<i>Ownership and accountability</i>	Regeneration and Community
<i>Ensuring success</i>	<p>Risks Poor staff take up</p> <p>Mitigation Publicity and promotion</p>
<i>Performance / success measure</i>	Until review completed, success and its measurement can't be determined
<i>Timing</i>	2008/09
<i>Sources of information and guidance</i>	



Project / Action 9: Greening the Fleet.	
<i>Description and notes</i>	Working with the Energy Saving Trust to audit and benchmark fleet management and emissions and determine methods of improving management and reducing emissions from the fleet
<i>Quantified costs and benefits</i>	Work done by the EST is free of charge. Until the study is complete cost of any proposals isn't known
<i>Resources</i>	Funding for EST proposals to be agreed
<i>Ownership and accountability</i>	Fleet Manager
<i>Ensuring success</i>	<p>Risks Possibility of poor take up depending on the Energy Saving Trusts suggestions.</p> <p>Mitigation Publicity and promotion</p>
<i>Performance / success measure</i>	Until the projects have been defined success and its measurement can't be determined
<i>Timing</i>	In hand
<i>Sources of information and guidance</i>	



Project / Action 10: Detailed Audit of Waste Streams.	
<i>Description and notes</i>	Audit of waste created – type and quantity, for each department. A senior manager in each department to be given responsibility for the project in that department. The intention is to accurately determine how much and what type of waste is generated by each department. It will then be possible to manage and reduce the waste. Quantity of waste to landfill will be significantly reduced and current purchasing and waste policies can be reviewed
<i>Quantified costs and benefits</i>	Costs and risks have yet to be determined
<i>Resources</i>	In house
<i>Ownership and accountability</i>	Regeneration and Community
<i>Ensuring success</i>	<p>Risks Poor staff take up</p> <p>Mitigation Publicity and promotion</p>
<i>Performance / success measure</i>	Appointment of a director/senior manager to take responsibility for a departments waste management Accurate determination of each department's waste. New policies written to reduce waste and improve recycling and re-use of materials
<i>Timing</i>	2007/08
<i>Sources of information and guidance</i>	



Project / Action 11: Renewable Energy.	
<i>Description and notes</i>	Detailed study of the practicality of using renewable energy. Studies to target particularly wind, large and small scale, solar water heating and wood fired boilers.
<i>Quantified costs and benefits</i>	Costs and risks have yet to be determined
<i>Resources</i>	In house and/or consultants
<i>Ownership and accountability</i>	Energy Manager
<i>Ensuring success</i>	<p>Risks Lack of awareness of the availability of renewable energy its use in schools, APHs, leisure centres etc Resistance to change</p> <p>Mitigation Publicity and promotion. Make decision makers aware of the benefits.</p>
<i>Performance / success measure</i>	Quantity of energy from renewable sources is currently unknown. We must quantify our current use of renewable energy and set up a monitoring system to measure and report on the uptake of renewable energy.
<i>Timing</i>	Medium to long term
<i>Sources of information and guidance</i>	Carbon Trust



Project / Action 12: Automatic Meter Reading with M&T	
<i>Description and notes</i>	One of the poorest aspects of our energy policy is data collection and data management. The TEAM Bureau solutions work will improve matters considerably. It does not, however, provide half hourly meter reading information to be input into M&T software to produce degree day graphs, energy projections, CUSUM analysis. TEAM is a short/medium term project to show what could be achieved if full AMR and M&T were implemented. It is proposed to add a long term project to use our Managed Network to collect and aggregate data on one of our internal servers. Sites will be targeted using basic consumption information from the TEAM project.
<i>Quantified costs and benefits</i>	Costs and risks have yet to be determined
<i>Resources</i>	In house
<i>Ownership and accountability</i>	Energy Manager
<i>Ensuring success</i>	<p>Risks Potential cost of the software Lack of appreciation of the benefits</p> <p>Mitigation Use of TEAM experience to sell the benefits of AMR.</p>
<i>Performance / success measure</i>	Quantity of energy from renewable sources is currently unknown. We must quantify our current use of renewable energy and set up a monitoring system to measure and report on the uptake of renewable energy.
<i>Timing</i>	As soon as
<i>Sources of information and guidance</i>	Carbon Trust



Appendix B...Communications Plan

Stakeholder Group	Issues	Key Messages	Means of Communication	Timetable	Officer Responsible
Council & Cabinet	<p>Creating awareness</p> <p>Raising profile and awareness of carbon management</p> <p>Making carbon management a corporate priority</p>	<p>Need for investment – financial and staff. Create the business case for such investment Potential to publicly ‘lead the way’</p>	<p>Cabinet briefing Cabinet reports Regular portfolio holder & SMC briefings</p> <p>Corporate plan priority</p>	<p>When draft plan produced</p> <p>Ongoing</p> <p>March 2007</p>	<p>Energy Manager</p> <p>Cabinet</p>
Chief Officers & Chief Exec	<p>To raise awareness and secure support. Emphasise the need for awareness and the commitment to carbon management to ‘drip down’.</p>	<p>Carbon management is a strong corporate priority.</p> <p>Lots of small actions can, collectively, make a significant contribution</p>	<p>Corporate Plan</p> <p>Cabinet Reports</p> <p>Chief Officers Group meetings</p> <p>Intranet</p>	<p>When draft plan produced</p> <p>Monthly</p>	<p>Energy Manager</p>
Climate Change Action Programme Board	<p>To drive the programme</p> <p>To monitor performance progress and savings</p>	<p>Carbon management is a strong corporate priority.</p>	<p>Cabinet Reports</p> <p>Chief Officers Group meetings</p> <p>Intranet</p>	<p>To be decided</p>	<p>Director of Regeneration and Community</p>
Heads of Service	<p>Need to secure support and for awareness to ‘drip down’</p> <p>Need for their specialist information and data gathering to generate action.</p> <p>Resource issues</p>	<p>Carbon management is a corporate priority</p> <p>Get staff involved – encourage them to spot waste & give feedback on savings</p> <p>Dispel energy myths</p>	<p>Cabinet reports</p> <p>Briefings</p> <p>Notice boards</p> <p>Intranet</p> <p>Department publications</p> <p>Staff appraisals</p> <p>Good practice workshops for staff</p>	<p>ASAP</p>	<p>Energy Manager</p> <p>HoS</p>



Stakeholder Group	Issues	Key Messages	Means of Communication	Timetable	Officer Responsible
All staff	Attitudinal change needed. Need to provide relevant information on performance. De-mystify carbon management and challenge myths	Success depends on staff being involved. Link energy saving and money saving. Link energy saving at work and at home	Regular articles via intranet and Council Life Staff conference/workshop Staff induction 'Switch it off' day Awareness raising Green Team Energy Champions	Regular articles to show savings, projects.	Energy Manager Green Team members
Schools. Head teachers, governors, staff, caretakers and pupils	Need to engage schools Financing of projects. Caretaker training	Whole school approach required – fabric, services, curriculum & pupil involvement	Schools intranet Awareness raising – posters in school Pupil engagement – energy projects as part of curriculum Eco Schools Good practice training for caretakers, headteachers and governors	All ASAP	HoS Children and Young People

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Appendix C Derby Declaration on Climate Change

We acknowledge that:

- Evidence continues to mount that climate change is occurring.
- Climate change will have far reaching effects on the UK's people and places, economy, society and environment.
- Tough decisions will need to be taken at the international, national and local level to readdress the balance between economic growth and a deteriorating environment.

We welcome the

- Social, economic and environmental benefits which come from combating climate change.
- Emissions targets agreed by central government and the programme for delivering change, as set out in the UK Climate Change Programme.
- Opportunity for local government to lead the response at a local level, encouraging and helping local residents, local businesses and other organisations – to reduce their energy costs, to reduce congestion, to adapt to the impacts of climate change, to improve the local environment and to deal with fuel poverty in our communities.
- Endorsement of this declaration by central government.

We commit our Council to

- Work with central government to contribute, at a local level, to the delivery of the UK Climate Change Programme, the Kyoto Protocol and the target for carbon dioxide reduction by 2010.
- Participate in local and regional networks to better inform our knowledge of climate change and to identify opportunities to work more collaboratively.
- Within the next two years develop plans with our partners including Derby City Partnership and with our local communities, to progressively address the causes and the impacts of climate change according to local need.
- Publicly declare, within appropriate plans and strategies, the commitment to achieve a significant reduction of greenhouse gas emissions from our own authority's operations, especially energy sourcing and use, travel and transport, waste production and disposal and the purchasing of goods and services.
- Assess the risk associated with climate change and the implications for our services and our communities of climate change impacts and adapt accordingly.
- Encourage all sectors in our local community to take the opportunity to adapt to the impacts of climate change, to reduce their own greenhouse gas emissions and to make public their commitment to action.
- Develop an awareness-raising programme to equip all sectors of the local community with the necessary information and advice to make well informed decisions to help reduce their own greenhouse gas emissions.



- Monitor the progress of our plans against the actions needed and publish the results through the review of the Council's Environmental Policy.

Derby City Council acknowledges the increasing impact that climate change will have on our community during the 21st century and commits to tackling the causes and effects of a changing climate on our city.