

Derby City Council

Climate Change Strategy 2009-2012 – (1st Draft)

1. The challenge

Climate change has been described by the Government's former chief scientific officer as long ago as 2004 as "the most severe problem we are facing today". The consensus of the United Nations Intergovernmental Panel on Climate Change, IPCC, which draws on the research findings of hundreds of the world's leading scientists, is that climate change is happening and humans are contributing to it. Natural cycles influencing climate do exist; however, scientists are certain that current and future climate change is, and will be, driven by releases of human generated global warming gases such as carbon dioxide.

- It is estimated that global temperatures' will rise by between 1.5 and 3 degrees Celsius by 2050
- The 17 warmest years have all occurred in the last 20 years

There are serious consequences if temperatures continue to rise:

- Rises of 1 to 2 degrees Celsius will lead to potentially large numbers of extinctions, ecosystem collapses and major increase in hunger due to droughts
- The world will suffer more severe heat waves, with storms and flooding more likely to occur

Changing world climates will have global implications, which will require action on a local scale. The challenge is to identify and take action at this local scale, in order to minimise the effects and maximise the benefits of climate change.

This issue, unlike any other taken on board by local councils, is uniquely difficult to deliver for the following reasons:

- Some people feel disempowered about doing anything about climate change as they see it, quite rightly as a very big problem area, but also one that in many respects is too big to influence. Human induced climate change is a serious problem that not only needs big and bold solutions, but requires people to be big and bold themselves when making decisions to address the issue.
- The timescales involved in a changing climate are relatively long-term and are not within the lifetime of some of us. To help address this we need to concentrate our efforts on the areas of our operations that produce the most carbon dioxide and significantly reduce them. The need to act now to limit the serious future impacts of a changing climate is critical, even for many alive today, let alone for future generations.
- Carbon as the main unit of currency in this area is a somewhat difficult notion to grasp. However, this will need to be done, as the Carbon Reduction Commitment, CRC, is a central part of the UK's strategy for controlling our carbon dioxide emissions. It aims to tackle emissions not already covered by Climate Change Agreements and the EU Emissions Trading System. This will help reduce the country's carbon footprint to deliver the ambitious emissions reduction targets set in the Government's Climate Change Act. The scheme will start in April 2010.

- Popular misconception that responding to climate change will involve major financial sacrifice and a deteriorating quality of life. On the contrary if we don't act now, on both a local or global level, the future financial impacts will be much graver. The Stern Review's on the Economics of Climate Change main conclusion is that the benefits of strong, early action on climate change considerably outweigh the costs. It proposes that one percent of global gross domestic product (GDP) per annum is required to be invested in order to avoid the worst effects of climate change, and that failure to do so could risk global GDP being up to twenty percent lower than it otherwise might be. The Review states that climate change is the greatest and widest-ranging market failure ever seen, presenting a unique challenge for economics.
- Whilst council's can play an important role by reducing energy consumption in the services they deliver using 'green' generation technologies and providing community leadership, the issue also needs to be tackled on a national and international scale by changing power generation technology away from fossil fuels.

2. Why do we need a strategy?

We need a strategy to outline the direction we will take in addressing this very challenging but critically important issue over the next 2-3 years. Since we signed up to our carbon reduction target of reducing our carbon emissions by 25% by 2012 we have really struggled to make any demonstrable savings. This has been down to a number of factors including how we underestimated the inherent difficulties of even achieving small carbon savings in a large complex organisation that has a multitude of priorities, including expanding services, to address at any one time.

We are also responding to this issue on a number of different fronts and now have an array of national targets to deliver and will soon have a statutory 'cap and trade' scheme for carbon in the form of the Carbon Reduction Commitment. These key drivers are outlined in some detail in the next section.

Taking all this into account the aim of this strategy is therefore to:

1. clearly set out our medium to long-term aims and aspirations as to how we intend to reduce the carbon footprint of the Council;
2. acknowledge and identify the main difficulties that we face in meeting our own domestic carbon reduction ambitions but also in developing this agenda with our partners across the city;
3. identify the top level actions we need to take in order to deliver the progress we need to make.

In taking this strategy forward we have adopted two main responses to help tackle the issue of climate change: "mitigating" the underlying cause of greenhouse gas production and secondly "adapting" to the unavoidable effects of climate change.

- "Mitigation" aims to reduce the release of greenhouse gases by using less energy, and using energy more efficiently and adopting more sustainable technologies to reduce our dependence on fossil fuels.
- "Adaptation" accepts that even if greenhouse gas emissions had remained at year 2000 levels, warming would continue well into the 21st century. Adaptation therefore aims to prepare communities and environments for this inevitable

warming by increasing resilience against the negative impacts and maximising the positive aspects of climate change.

3. Drivers behind action on climate change

Climate change has been recognised as a global problem which requires cooperation on international, national and local scales. In order to encourage governments and organisations to take action on climate change and work together to reduce greenhouse gas emissions, a number of agreements, targets and policies have been established:

International agreements:

Kyoto Protocol

The Kyoto Protocol is an international environmental treaty aimed at stabilising greenhouse gas emissions at a level that would prevent dangerous climate change. Legally binding targets have been established for industrialised countries to reduce emissions of greenhouse gases by 5.2%, compared to 1990 levels by 2012 (average emissions from 2008-2012) and European Union countries to reduce emissions by 8%.

Bali road map

The process to finalise a binding agreement at the 2009 UN Summit in Copenhagen to ensure "deep cuts" in emissions from developed nations by setting long term global emission targets after 2012.

National targets:

Climate Change Act

The UK's Climate Change Act is the world's first long-term legally binding framework to tackle climate change and reduce emissions by at least 26% by 2020 and 80% by 2050.

National Indicators

A number of National Indicators have been developed to assess all Local Authorities' (LAs) progress towards mitigating and adapting to climate change. These Indicators also help to identify where the LA needs to improve, therefore, helping to promote further work. Indicators relating to climate change include:

- *185 Percentage CO2 reduction from local authority (LA) operations*

185 addresses LA carbon emissions from the Council's own estate, services and the transport used to perform these services. As a first step 185 requires the LA to calculate its own emissions from all service areas, including those which have been outsourced and begin to reduce these emissions. By reducing in-house emissions, the LA will set a good example to the community and private sector and encourage further reductions outside the LA.

- *186 Per capita CO2 emissions in the LA area*

This indicator builds on the work of 185 by encouraging Local Strategic Partnership organisations to follow the Council's lead and reduce their own emissions, in order to reduce CO2 emissions throughout the LA area. 186 focuses on three key sectors: business, domestic housing and road transport.

- *187 Tackling fuel poverty – % of people receiving income based benefits living in homes with a low and high energy efficiency rating*

187 assesses the Council's efforts to tackle fuel poverty through improving the energy efficiency of households inhabited by people claiming income related benefits. Whilst improving the quality of life of these residents, by providing warm and dry housing and reducing energy bills, national indicator 187 also contributes towards tackling climate change by improving energy efficiency.

- *188 Planning to adapt to climate change*

Whilst previously mentioned indicators focus on climate change mitigation, 188 aims to facilitate climate change adaptation within the Council and partner organisations. The indicator involves identifying risks and opportunities associated with the changing climate and developing strategies to minimise losses and maximise benefits.

National carbon reduction scheme:

Carbon Reduction Commitment (CRC)

The CRC is a mandatory cap and trade system which aims to deliver carbon emission reductions and cost savings specifically in large, non-energy intensive organisations, such as Local Authorities. The scheme is set to start in April 2010 and will involve participating organisations purchasing emission allowances for the year.

The scheme will bring added financial incentives to improving the energy efficiency of Council buildings, as well as reputational incentives. An annual league table, available for public scrutiny, will be produced each year ranking participating organisations relative performances. Failure to comply with the CRC will bring monetary penalties, whilst best performing organisations will receive bonuses.

4. Our vision

To help bring together and articulate where we would like to get to in the long-term with our work on climate change we adopted the following vision statement:

'to work towards ensuring human induced climate change and its effects are limited to a level that will allow every person to prosper within locally and globally sustainable environments'

The aim of this strategy is to make sure that the Council meets its obligations under this vision by delivering practical actions on the ground for those things it can either directly manage or influence.

5. Objectives

To help us deliver our vision the following objectives

1. To reduce the Council's carbon emissions in line with NI185 by at least 25% by April 2012;
2. To work closely with our partners to facilitate the reduction of per capita CO2 emissions within the city from 6.7 tonnes/capita to 6.11 tonnes/capita by April 2011.
3. To increase the generation of renewable energy throughout the city through our own direct activities and through our support to others.
4. To help prepare the Council's services for the changes that will come about through more extreme weather events by achieving level 2 of NI188 by December 09.
5. To continue to measure, record and report on our carbon emissions to help improve our performance and to meet all mandatory requirements;
6. To improve our performance in the CRC league table every year from April 2010 onwards.

6. Taking things forward

In order to realise our vision and to deliver our objectives the following groups will play a key role:

- Climate Change Board - the Climate Change Board meets quarterly and looks at projects, processes, progress and issues at each meeting. It is the main body that decides what we do in this area. It is chaired by a Member of the Council Cabinet. An important feature of the Board is that it is not party-political and has representation from all three major political parties.
- Climate Change Commission - Overview and scrutiny is a process that enables elected Members of local authorities who are not in the Council Cabinet to review and scrutinise matters affecting the city. The Climate Change Commission was established in 2007. Its role is broader than climate change activity, but its main purpose is to scrutinise energy usage and consider how this could be made more efficient, reducing the Council's carbon footprint.
- Climate Change and Energy Management Unit (CCEMU) – The role of the CCEMU is to identify and develop projects that have the potential to achieve significant carbon savings and to help co-ordinate action across all Council departments and to measure and report on our carbon emissions in line with government requirements.
- Climate Champions – The champions are responsible for galvanising support and commitment to climate change and energy conservation among the Council's 12,000 employees. The network has approximately 50 members and is divided into three subgroups tackling the following areas: energy monitoring, campaigning and recruitment. Each group has adopted a 12 month work programme that identifies a range of key tasks and projects to help save energy in the workplace.

7. Priorities for action

In this section we have identified our main priority areas for action under the following main headings:

1. Strategy
2. Services
3. Community Leadership
4. Own Estate

This categorisation is based on the work we have recently undertaken with the Energy Savings Trust through their Local Authority One-to-One Support Programme. Each section focuses on a different aspect of the Council's work in either directly addressing this issue through its own activities and services or using its influence to encourage others to play a key role.

At the start of each section an explanation will be given to describe what areas are covered followed by a list of the main challenges we face in trying to deliver the necessary climate change/carbon reduction measures.

This will then lead onto to a table containing a series of high level actions/projects to help us make substantial progress in this area. By their very nature, these projects will indeed be very challenging to deliver but are essential to address some of the key challenges we have identified and have directly experienced over the last few years. The projects have been informed by the following main sources:

1. The recommendations made in the Energy Savings Trust One-to-One Programme in Spring 09;
2. The research undertaken by the Climate Change Commission looking into the state of play with regards to climate change awareness and action in December 08;
3. The experience of officers in the newly formed Climate Change and Energy Management Unit.

We also need to be mindful of the following hierarchy when deciding what priority we give projects in this area:

- Using less energy
- Using energy more efficiently
- Using energy from renewable sources
- Sourcing and generating the remainder in a less damaging way.

These actions will help to focus the limited resources of the Council over the next 2-3 years to help tackle some real blockers to progress. Identifying a limited number of highly focused actions with clear targets will also ensure that the progress we make can be easily monitored. The timeframe for each project/action falls into the following three categories:

Short – 12 months

Medium – 1 to 3 years

Long – 3 to 10 years

Running alongside the strategy we will continue to develop an annual programme of projects to support the delivery of the agenda. This will not receive the same amount of scrutiny as the high level actions contained in this document.

7.1 Strategy

This section focuses on the Council's strategic approach to address climate change by looking at how it is gearing up to the challenge across the organisation. More specifically this section will look at:

- the allocation of both human and financial resources to support this agenda;
- the level of support this area receives both corporately and politically;
- the degree to which employees are trained and motivated to do their bit.

It is critically important that we get this area right to give us a good platform to respond to the various national and local drivers outlined in Section 3 including the Government's national indicators on climate change and the Carbon Reduction Commitment.

Key challenges

- Taking the Stern Review recommendation that countries need to invest 1% of GDP per year in measures to avoid the worst effects of climate change this principle can be scaled down for both Council and individual situations. The Council therefore needs to invest at least £3.5M annually for climate change mitigation work related to its own activities.
- The difficulty of securing corporate 'ownership' with this agenda throughout the whole Council so that every department fully participates in helping to meet our carbon reduction aspirations.
- The difficulties involved in trying to embed this agenda alongside competing priorities that are perceived to be of a higher need, especially in the short-term.
- Managing the expectations of elected members to ensure that they are well informed about the challenges we face in trying to deliver our various targets.
- Making sure we gear up to the financial and operational demands of the Carbon Reduction Commitment

Strategy

Reference	High level goal	Actions	Timescale	Who	Cost/ funds secured - Y/N	Carbon impact
St 1 -	Make sure that carbon management is firmly embedded within the corporate decision making framework of the Council.	<p>1. Review the membership and effectiveness of the Climate Change Board to deliver this strategy.</p> <p>2. Include carbon reduction as an essential requirement within the business planning process.</p> <p>3. Develop a risk register as part of NI188 to inform all council services on the likely impacts of climate change.</p>	<p>Short</p> <p>Short</p> <p>Short</p>			M

		4. Develop a process to ensure that all major council reports are fully appraised against their climate change implications.	Short			
St 2 -	Fully staff and effectively manage the new Climate Change and Energy Management Unit.	1. Seek approval to new structure and recruit all vacant posts.	Short/Medium			M
St 3 -	Gear up for the Council's involvement with the Carbon Reduction Commitment.	1. Pilot the CRC on a small scale as a learning exercise through our involvement in the Carbon Trading Public Sector project. 2. Gather data for 100% of applicable emissions in order to confidently enter into the scheme in April 2010. 3. Seek the engagement of schools and agree their role/contribution within the scheme.	Short Short Short			M
St 4 -	Fully engage all our employees in doing their bit for climate change.	1. Develop a new engagement campaign/programme for employees including a series of road shows at key council buildings. 2. Seek to get climate change embedded in all job descriptions and as a compulsory component of the Achievement and	Short Short/Medium			M

		Development process.				
St 5 -	Identify and secure funding to deliver our strategy.	<p>1. Investigate the merits of securing external funding sources in helping to deliver some of our projects including, for example, the Community Energy Saving Programme - CESP</p> <p>2. Look at how we can better use both Salix funding and Prudential borrowing to help fund those projects that have a reasonable payback.</p>	Short/Medium			L

7.2 Services

This section focuses on the integration of tackling climate change through the delivery of specific services to the local community. The delivery of each service has both direct and indirect carbon implications from our provision of social housing to the support we deliver to regenerate the city. We need to look for opportunities to modify how we deliver our core services to reduce their carbon footprint. This section has implications for our performance under NI185 because of the energy used in delivering our various services but also has implications for NI188 in trying to improve the resilience of our services to extreme weather conditions.

Key challenges

- Convincing Service Heads of the need to both reduce the carbon footprint of their service and to make their service more climate change resilient.
- Identifying potential carbon savings for some services can be relatively straight forward but for others it may be more difficult.
- Providing adequate and timely information for service heads to make decisions.
- Overcoming the perception that making the necessary carbon savings could compromise service delivery and is yet another peripheral issue to consider.
- Developing a culture that understands and owns this agenda so that any service improvement projects come from the service itself and not from the CC&EM Unit.

Services

Reference	High level goal	Actions	Timescale	Who	Cost/ funds secured - Y/N	Carbon impact
Se 1 -	Challenge each department, with the support of the CC&EMU, to identify a portfolio of carbon saving opportunities to implement and manage.	<p>1. Develop a user-friendly toolkit to support Assistant Directors to better understand the issue of climate change and to identify what they can do through their service to help.</p> <p>2. Roll out this challenge to all Assistant Directors.</p>	<p>Short</p> <p>Short/Medium</p>			M
Se 2 -	Respond to the challenges of climate change through new development.	<p>1. Establish a reliable evidence base for the application of low carbon and renewable technologies throughout the city.</p> <p>2. From the evidence base develop appropriate planning policies including targets for on-site renewables.</p> <p>3. Develop Supplementary Planning Guidance to support developers to incorporate sustainable construction and renewable</p>	<p>Short</p> <p>Medium</p> <p>Medium</p>			M

		energy technologies in all new developments.				
Se 3 -	Encourage schools to fully engage with the climate change agenda.	<p>1. Build on the data collection exercise recently undertaken for NI 185 to identify those schools that need additional help/ support to reduce their own energy usage.</p> <p>2. Set up a dedicated web page of links to free classroom resources and relevant information to support schools in this area.</p> <p>3. Links with Education will be sought to draw together all of the relevant Officers to look at how Derby schools can be supported in addressing all of the 8 doorways of sustainability</p>	Short			M
Se 4 -	Continue to build energy efficiency measures into private sector housing refurbishment programmes.	<p>1. Continue to install the energy efficiency improvements within the Rosehill block improvement programme</p> <p>2. Develop a demonstration project on energy efficiency and the practical application of renewable technologies in a property within the Rosehill area.</p>	Short/Medium			

Se 5 -	Increase the energy efficiency of public sector housing.	1. Replace all the storage heaters in all homes with efficient gas condensing boilers. 2. Undertake a programme to dry-line all pre-war homes as part of the scheduled modernisation programme.	Short/Medium Short/Medium			
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7.3 Community Leadership

This section considers the authority's activities through which it can influence and guide the wider community to embrace a low carbon future. This involves:

- the Council's work with Derby City Partnership and the City's Community Strategy;
- engagement with regional bodies to tackle this agenda;
- work undertaken with the wider community;
- ways to reduce the carbon emissions from the transport sector.

This section mainly has implications for NI186 which requires the council to work with its partners to reduce the carbon emissions of the wider city. This ambitious aim requires the council to act as a facilitator and enabler in working with its public, private and voluntary sector partners to galvanise the commitment to develop an effective response to this agenda.

Key challenges

- Making sure that the Council is in fact leading by example when working across the city to engage others in this agenda.
- Securing the necessary buy-in from key partners so that any work can be shared in the spirit of true partnership working.
- Identifying common projects to ensure that a productive dialogue is maintained with our partners.
- Ensuring that any projects developed with our partners lead to tangible carbon savings that can be measured as part of our NI186 aspirations.

Community Leadership

Reference	High level goal	Actions	Timescale	Who	Cost/ funds secured - Y/N	Carbon impact
CL 1 -	Establish a productive city-wide partnership group to act as the strategic lead for NI186.	<ol style="list-style-type: none"> 1. Establish a Steering Group to help take the lead in moving this agenda forward. 2. Develop a small number of projects that the partnership can support/champion across the various sectors of NI186. 3. Develop a small energy efficiency grant scheme for the local business community. 	<p>Short</p> <p>Short/Medium</p> <p>Short/Medium</p>			L
CL 2 -	Develop a city-wide communications programme on climate change to help provide the necessary information and motivation for local people to understand how they will be affected by the issue and what they can do to help.	<ol style="list-style-type: none"> 1. Identify examples of good practice from other organisations and/or cities that can be transferred to Derby. 2. Identify potential funds that can be used to support such a campaign and work up associated project 3. Organise the 2008 Eco-Fest celebrations with a 	<p>Short</p> <p>Short/Medium</p>			M

		<p>specific focus on climate change.</p> <p>4. Roll out the loan of energy monitors to all libraries throughout the city.</p>	<p>Short</p> <p>Short</p>			
CL 3 -	Construct a Hydro power station on the river Derwent immediately behind the Council House.	<p>1. Transfer licence from the Environment Agency and recommencement of planning permission.</p> <p>2. Start on site and construction of the final building/facility.</p>	<p>Short</p> <p>Short/Medium</p>			H
CL 4 -	Investigate the potential for generating wind energy on Council own land.	1. Bring to Cabinet the findings from the work undertaken by Partnerships for Renewables - PfR	Short			M
CL 5 -	Look for opportunities to support combined heat and power (CHP) district heating schemes throughout the city.	<p>1. Investigate the potential for a city centre CHP scheme.</p> <p>2. Investigate the merits for such schemes on all major residential and commercial developments throughout the city.</p>	<p>Short</p> <p>Short/Medium</p>			M

7.4 Own Estate

This section brings together those activities that contribute directly to the Council's use of carbon including the following main areas:

- the Council's procurement of goods and services;
- the management of its own buildings including schools;
- the management of the street lighting and illuminated traffic sign assets
- the management of its own transport fleet.

This section is crucially important with regards to NI185 and the CRC. For example, the Council has to work out and report on the carbon emissions from its main contractors who carry out a wide variety of services on its behalf. It therefore needs to have a good system in place to both collect this information and to influence the carbon savings that can be potentially made from the goods and services we procure.

Key challenges

- Significant and sustained reductions in emissions from consumption of fossil fuels including electricity
- Procurement decisions are largely driven by financial considerations with little or no consideration given to the potential carbon savings.
- Don't have the level of investment required to do what we need to improve the energy efficiency of all our buildings many of which are old and in a poor state of repair.
- Many of our buildings, including schools, are subject to ongoing reviews making medium to long term investment decisions difficult.
- Managing perception and expectations of all Derby residents and visitors regarding the level and uniformity of street lighting.

Own Estate

Reference	High level goal	Actions	Timescale	Who	Cost/ funds secured - Y/N	Carbon impact
OE 1 -	Develop a carbon reduction strategy for all the Council buildings to secure the most effective carbon savings and to use this information to develop a 'bang for bucks' improvement programme.	<ol style="list-style-type: none"> 1. Formalise a sustainable design policy 2. Develop a prioritised programme of energy saving projects across the Council's estate. 	<p>Short</p> <p>Short/Medium</p>			H
OE 2 -	Reduce the carbon emissions from street lighting.	<ol style="list-style-type: none"> 1. Develop an options paper outlining the various technical and operational options available to reduce emissions 2. Implement appropriate options in consultation with the Street Lighting PFI Board. 	<p>Short</p> <p>Short/Medium</p>			H
OE 3 -	Improve energy data availability and accuracy to enable managers to better understand their energy usage.	<ol style="list-style-type: none"> 1. Put in electronic metering across all departments. 	Short/Medium			M
OE 4 -	Develop a more effective system to engage with the Council's procurement process to bring about targeted and measurable carbon savings.	<ol style="list-style-type: none"> 1. Analyse the data we get back from the NI185 exercise involving our suppliers. 2. Investigate more effective ways to embed the Sustainable Procurement Policy. 	<p>Short</p> <p>Short/Medium</p>			H

Reference	High level goal	Actions	Timescale	Who	Cost/ funds secured - Y/N	Carbon impact
OE 5 -	Review of business travel provisions and requirements with an aim to reduce employee car business mileage and encourage more sustainable forms of transport.	<p>1. Review of existing policy and provisions for staff parking.</p> <p>2. Develop improved information for public transport links including a staff travel 'information hub' promoting more sustainable forms of transport.</p> <p>3. Development, communication and promotion of a Car Share Scheme for Derby City Council employees.</p>	<p>Short/Medium</p> <p>Medium</p> <p>Medium</p>			M
OE 6 -	Reduce the carbon emissions from the Council's IT.	<p>1. Undertake a carbon baseline of the Council's IT usage.</p> <p>2. Finalise the Green IT Strategy, including an action plan for IT as a user of energy and as an enabler for other energy users</p> <p>3. Develop a carbon reduction programme</p>	<p>Short</p> <p>Short</p> <p>Short/Medium</p>			M