Leicester City Council

**WARDS AFFECTED: All**

**Cabinet** **12th March 2007**

# Leicester City Council's Climate Change Action Plan: Part I Mitigation

**Report of the Corporate Director of Adults and Housing**

## 1 Purpose of Report

To identify how Leicester City Council can contribute to the reduction of both its own direct greenhouse gas emissions and those of the city as a whole, in order that Leicester can make its contribution to reducing the effects of Climate Change, and implement its agreed Climate Change Strategy.

**Leicester City accounts for about 0.3% of the UK emissions.**

## 2 Summary

2.1 **The Leicester Partnership aspiration for the City is a 50% reduction on 1990 levels of greenhouse gas emissions by 2025. The City Council had already adopted this at its own target in 1994.** De Montfort University will shortly advise the Council on the greenhouse gas emissions of the City as a whole (expressed as $CO_2$ equivalent), and the best method of monitoring their change in future.

2.2 **By 2006 the Council had reduced its overall emissions by an estimated 25%.** The **Council contributes 3%** of City emissions and **schools a further 1%+.** If current EMAS targets are met the Council will achieve its target. However, renewed effort is needed to sustain the early successes as energy consumption has started to rise. If the targets are to be met successfully all proposals for service improvements assess the impact on $CO_2$ equivalent emissions within their business case to avoid perverse effect on EMAS targets. There must also be a step change in the rate of improving the council's existing buildings.

2.3 School governing bodies are likely to be able to access capital funds from a variety of sources for energy efficiency measures but need technical support. The action plan proposes an Agency is set up to give technical assistance to schools. More work is needed to ensure that future school replacement programmes consider the opportunity to maximise the potential for energy efficiency and the generation of renewables.

2.4 The report considers how best the City Council can seek to mitigate **the other 96% of City emissions** through its enforcement and enabling functions. The Leicester Partnership needs to consider mechanisms to encourage partners and other organisations throughout the city to create their own action plans. To achieve the ambitions of the Council and Leicester Partnership about reducing $CO_2$ emissions in the city, there must be a step change in the actions of partners and other organisations actions. The "What's Your Plan" campaign needs further funding from the Partnership. More investment is required from all the members of the partnership if the City is to have any major impact on commercial and other private sector organisations and travel.

2.5 The Council's action in the domestic sector has been very successful but current levels of activity must be sustained and new residential development, e.g., Ashton Green and the City Centre minimise the extent to which they add to the problem. The Government is consulting on the proposal that there is a statutory target for new housing to be 100% "zero carbon" by 2016.

2.6 Finally, resources are needed to prepare a further report to identify how the Council and the City need to **adapt its services** to the inevitable Climate Change, and ensure implementation of Part I and Part 2 of the plan.

2.7 In drawing up the proposals comparisons have been made with the Government's own internal targets (Appendix 4) and the recent announced Marks & Spencer plan (Appendix 3). Benchmarking has been undertaken with other authorities who have Beacon Status for their energy work (see Appendix 6).

## 3. Recommendations

Cabinet is recommended to:

3.1 Adopt the actions listed in Appendix 1 which is Part 1 of the Climate Change Action Plan and deals with reducing greenhouse gas emissions (mitigation).

3.2 Receive a further report on how the Council and City should prepare to adapt to the inevitable climate changes (adaptation).

3.3 In order to give the best likelihood of the Council achieving the EMAS targets relating to its own $CO_2$ emissions, recognise the need to aim for the following targets:-

a) A $CO_2$ impact assessment should be made for all new or replacement buildings and for service delivery changes showing the cost of achieving further reductions.

b) All Council buildings which replace existing ones should, as a minimum, aim to produce 50% less emissions than the ones they replace. This can be achieved by a mix of energy efficiencies and generation or purchase of renewable energy. There will be substantial savings in running costs.

c) All new developments should aim to be 'carbon neutral'. This can be achieved by a mix of energy efficiencies and the generation or purchase of renewable energy. There will be substantial savings in running costs.

d) All proposals to relocate existing functions or provide new (i.e., additional) services must not adversely affect EMAS targets on emissions arising from

vehicle fleet, customer mileage, staff business mileage and staff commuting. The impact on Travel Plan Policies must be considered as part of the business case for the change. Impact on customer travel must also be assessed.

3.4 Receive a further report on the implications of committing the Council's existing buildings to be all carbon neutral by 2012 (to match Central Government's target for its own "estate") and the issue of "carbon offsetting" **(CCAP 13)**.

3.5 Create a fee based Schools Energy Agency to offer a technical service to Governing bodies to implement energy measures as part of their efficiency planning and linked to the education of children **(CCAP 22)**.

3.6 Note the following service developments:-

- Create a permanent post of Better Buildings Officer **(CCAP 14**) when NRF funds expire.

- Appoint a Climate Change Officer to prepare Part 2 of the Action Plan (adaptation) and ensure implementation of Parts I and 2

- Commission specialist advice on the cost and benefits of extending the Council's existing Combined Heat and Power Schemes (**CCAP 10**) and the procurement options.

3.7 Encourage the Partnership to invest more heavily in enabling other organisations to prepare their own Climate Change Action Plans.
For example, support the appointment of a senior officer within the Leicester Partnership to lead on sustainability and suggest to the Partnership that the initial focus of the post should be on Climate Change and the "What's Your Plan" Campaign **(CCAP17)**.

3.8 Receive an annual report and review of the Climate Change Action Plan.

## 4. Financial & Legal Implications

### *4.1 Financial Implications - Rod Pearson, Ext. 7108*

Many of the costs and financial benefits associated with the initiatives listed in the Climate Change Action Plan are unknown at this time. Some of these initiatives will require significant financial evaluation and risk appraisal.

Two funding bids, relevant to the Climate Change Action Plan, are being put forward as part of the budget setting process for 2007/08 to 2009/10.

A service development bid of £100,000 has been included in the Regeneration and Culture Departmental Revenue Strategy. If approved it will fund:-

- A Better Buildings Officer (Appendix 1 CCAP 14) when NRF funds expire.

- A Climate Change Officer to prepare Part 2 of the Action Plan (adaptation) and ensure implementation of Parts 1 and 2.

- The commissioning of specialist advice on the cost and benefits of extending the Council's existing Combined Heat and Power Schemes (CCAP 10) and the procurement options.

A bid to set up a Schools Energy Agency is being considered as part of the Education Capital Programme. If approved, this agency would offer a technical service to Governing Bodies to implement energy measures.

In addition to the above, the Safer Stronger Communities Delivery Group of the Leicester Partnership is considering creating a sustainable development post, to be funded from the Partnership's resources (NRF).

*4.2* ***Legal Implications – Joanna Bunting, Ext. 6450***

Where new actions are being proposed reports will be brought forward with full legal implications attached.

5. **Report Author**

Ann Branson (extn.6802)
Service Director
(Renewal, Options and Development)

Anna Dodd (extn.6732
Team Leader, Environment Team

| | |
|---|---|
| **Key Decision** | Yes |
| **Reason** | Is significant in terms of its effect on communities living or working in an area comprising more than one ward. |
| **Appeared in Forward Plan** | Yes |
| **Executive or Council Decision** | Executive (Cabinet) |

Leicester City Council

**WARDS AFFECTED: All**

**Cabinet** **12th March 2007**

**Leicester City Council's Climate Change Action Plan – Part 1: Mitigation**

**Report of the Corporate Director of Adults and Housing**

# SUPPORTING INFORMATION

## 1. Background

1.1 Leicester City Council has a long track record in delivering on energy efficiency and $CO_2$ reduction, which began with the adoption of the city's first Energy Action Plan in 1994, which set our target to reduce energy consumption by 50% comparing 1990 levels to 2025. LCC then signed up and completed all 5 steps of the International Council for Local Environmental Initiatives (ICLEI's) Cities for Climate Protection Campaign in the late 1990s. In 2003 a Climate Change Strategy was published for the city and adopted by both the City Council and the Leicester Partnership. Leicester has an enviable international reputation for its energy efficiency and climate change work and is a Beacon Council for Sustainable Energy.

### 1.2 Why have a Climate Change Action Plan?

"*Climate Change is real and happening already. There is no more fundamental threat to our future" (*Ruth Kelly, Secretary of State for Dept of Communities and Local Govt, December 2006).

Leicester's Climate Change Strategy takes a broader view of addressing greenhouse gas emissions than simply considering our energy use. Greenhouse gases include:

- $CO_2$ - which is the major contributor (77%) because of the sheer volumes produced
- methane - smaller quantities, produced largely in landfill sites, but 21 times more potent as a greenhouse gas than $CO_2$
- Nitrous oxide – main contributor is agriculture followed by transport (but not to be confused with nitrogen dioxide)
- Fluorinated gases

Throughout the report the convention is to describe all greenhouse gases as $CO_2$ equivalent. To effectively reduce our Greenhouse Gas (GHG) emissions and implement the Climate Change Strategy within LCC a plan which encompasses all the city council's activities is required.

A Climate Change Action plan should cover both the mitigation (reduction) of Climate Change and how we need to adapt the way we deliver services in a changing climate. Part I of the Action Plan only covers mitigation measures.
Part 2 on adaption will be prepared when a Climate Change Officer is appointed.

## 1.3 What can be done to mitigate Climate Change?

1.3.1 The generally accepted "rules" for mitigating climate change are, in order:

| | | |
|---|---|---|
| **First Action** | - | reduce energy consumption (building insulation, reduce mileage) |
| **Second Action** | - | replace fossil fuel with low carbon or non carbon fuels from renewable resources |
| **Third Action** | - | "Off-set" the remaining emissions |

1.3.2 Carbon "offsetting" is a process which allows an organisation to reduce its carbon footprint (i.e. the amount of carbon it produces through its direct and indirect effects) by buying carbon credits. These credits can be obtained from emissions reductions projects (including energy efficiency and renewable power) which have been undertaken elsewhere, either in the UK, or in developing countries. There is much debate about the real "benefits" of some offsetting programmes and a verification process is currently being set up to manage standards in offsetting projects. This report recommends further investigation by officers before the Council adopt a policy on offsetting (**CCAP15**).

1.3.3 The Action Plan in Appendix 1 contains a range of measures for the first two actions, designed to maximise the possibility of the Council meeting its current EMAS targets, as set out in Appendix 5. The overall Council target is now a 50% reduction of 1990 *emissions* of $CO_2$ equivalent by 2025.

## 2. Report on City Council's own Emissions (See Action Plan Appendix 1 Table 1)

## 2.1 What are the City Council's direct emissions?

Leicester City Council's is responsible for about **3%** of Leicester's total greenhouse gas emissions: 53,950 tonnes $CO_2$ equivalent in 2005/6. Schools contribute a further 1% through building use alone.

The emissions are key direct effects arising from the Council's every day business (see Appendix 2, Figure 1):-

| | |
|---|---|
| • Energy and water in buildings | Up to 75% |
| • Staff commuting | Up to 15% |
| • Vehicle fleet | Up to 8% |
| • Staff Business mileage | Up to 2% |
| • Corporate procurement | Not easily measurable, but of some significance |
| • Waste | Not easily measurable, but of low significance |
| • Street lighting | 0% because at present purchasing electricity from renewable sources |

## 2.2 What Progress is Leicester City Council Making?

We are starting year 14 of a 31-year programme (target adopted 1994). The council has reduced its overall greenhouse gas *emissions* as a whole by 25% between 1990 and 2005/6; this is largely due to the change to cleaner fuel, and a smaller part due to energy efficiency measures and street lighting purchasing electricity from 100% renewable sources. However our overall energy *consumption* has fluctuated and then rose significantly (11.7%) in 2004/05 and again (1.4%) in 2005/06. It is not clear if travel targets are being met. The Council's increasing energy and water consumption is referred to in the EMAS targets progress in Appendix 5.

## 2.3 What should the Council's priorities be internally?

### 2.3.1 Council Buildings (<75% of Emissions)

Firstly, the current programme for improving insulation and heating controls needs to move at a faster rate. This is possible using prudential borrowing and work has begun and the predicted impact of an accelerated programme is being assessed. (**CCAP1**).

Where measures have been taken in individual buildings it has been possible to meet targets. But, naturally, work has been directed at "quick wins". Until the enhanced programme of investment using prudential borrowing gets underway it is not possible to confirm whether the 50% target will be achieved. Appendix 7 shows where the council uses energy.

Funding is in place for an enhanced programme of work. The work is implemented by the Energy Services Team within Adults and Housing Department. Revenue funds are from the levy collected on all internal energy bills via the rebate agreement. Capital can be secured from prudential borrowing, subject to the work reducing energy bills sufficiently to repay loans in 10 years. The principle that this can be achieved has been established by the first two years of running the LAEF Scheme, which is 50% grant funded by the Carbon Trust. The LAEF Schemes saved £91k annual revenue costs for an investment of £400k.

The team is preparing an enhanced programme of investment. In the short term it is constrained by vacancies and the need to obtain specialist advice on technical solutions for which current nationwide demand has grown. Medium term meeting the 50% overall reduction target has been hampered by the additional emissions from new buildings. In December Corporate Directors Board put in place mechanisms to ensure that the project boards of all new and replacement buildings will receive costed options for development that demonstrate the ongoing revenue savings to be made from various levels of enhance investment in insulation, heating controls, etc.

It is now proposed that corporate targets are set for those project boards. The targets are included in the recommendations to Cabinet. New and replacement buildings offer the best opportunities for success. Clearly, if they do not meet targets then existing buildings must reduce consumption by more than 50%.

Energy use is also increasing with the expansion of IT. The Rebate Fund will be used to appoint an internal advice officer to work on the use of energy with staff section by section. (**CCAP2**)

Finally, the Council must increase its efforts to buy energy from renewable sources if it is to meet its EMAS target (20% renewables). The issues here are that sufficient supply is not currently available and the cost could be higher than fossil fuels. These issues will be explored when the current contract is renegotiated. (**CCAP8**)

The Action Plan, therefore, reaffirms that the Council should accelerate its priority of encouraging the development of renewable energy sources both for its own and other's consumption and encourage the development of new local sources. Current projects include exploring the use of biomass fuels for our CHP and preparing a report on the possibility of a large scale Wind Turbine in the City (**CCAP 9-12**)

2.3.2 Council Transport

25% of the Council's own emissions come from transport use (vehicle fleet, staff business mileage and staff commuting). Current targets are modest and probably not being achieved. The Action Plan proposes undertaking a review of the vehicle fleet which the Energy Savings Trust if offering to do, free of charge, and the early adoption of a Travel Plan to cover all three elements (**CCAP3)**.

Internal action on these issues are important if the Council wishes to act as a community leader in encouraging other organisations to adopt travel plans.

2.3.3 Development of Local Power Sources (CHP) and Renewable Fuels

Combined Heat and Power

Traditionally, in the UK, electricity generating power stations lose 60% of the energy used to generate the electricity as "waste heat" in the cooling towers. The local generation of heat and power is more energy efficient since it uses this "waste heat". It also gives good opportunity for the use of renewable energy sources such as biomass.

The Council's Housing Department already has Combined Heat and Power units serving its inner city estates. If these are linked into a new city wide ring

main network, then potentially 39 public non-residential buildings and 6000 dwellings can benefit from affordable warmth (61% council housing and 39% private housing).

The possible $CO_2$ emissions reduction is estimated at almost 12,000 tonnes per year, a significant contribution to the target. LA's such as Southampton and Woking have used this approach for a number of years.

In December 2003 the Council and other partners commissioned a technical and economic feasibility study prepared by Ove Arup and Partners. This described the business case for an extended CHP scheme in the city. The scheme did not go ahead for a number of organisational reasons.

The Government is now encouraging Local Authorities to set up such schemes and detailed guidance on procurement is available from the Carbon Trust. The specialist organisation that would run such a scheme is usually known as an ESCO (Energy Services Company). Birmingham is at the final stages of procuring a scheme to supply heat and power to large parts of its commercial and residential city centre. In Leicester, benefits would accrue across members of the Leicester Partnership and the City.

The first task would be to update the Arup Report, to see what the current business case is and explore the models for procurement (joint venture, public sector, private sector) assessing the risks, costs and benefits of each. If the Business Case is made, Leicester City Council, together with appropriate partnership, would want to "go to the market". The majority of CHP schemes are developed through partnerships between the public sector and Energy Services Companies (ESCO's). Both stages of work require specialist input. City Council staff and partners would be involved in the project management. **(CCAP10)**

2.3.4 Local Renewables

Officers are assessing the potential for a medium scale wind turbine in the City and will report in June. (**CCAP9**)

Further work will be done on the opportunities to encourage local biomass sources and their use (**CCAP11**). In September a trial is starting at St Andrews boiler house, using vegetable oil.

2.5 **Are our own targets challenging enough and can LCC be "carbon neutral"?**

The UK government's overall target is to cut national emissions to 60% below 1990 levels by 2050. We have benchmarked ourselves against Marks and Spencer who have recently launched a plan which includes their actions to address Climate Change (see Appendix 3). We have also considered the actions which are currently being pursued by the Government Estate (Appendix 4) and will benchmark ourselves against the other Beacon councils for Sustainable Energy (Appendix 6).

From using these as benchmarks, we believe that our own and the City targets are appropriate. The issue will be considered in a further report when we have a clearer idea of what else can be achieved in our buildings stock (**CCAP1**) and

have assessed the issues of being "carbon neutral" and the use of "carbon offsetting" (**CCAP14**) (**Recommendation 3.4**)

## 3. Report on City Emissions (see Action Plan in Appendix 1 Table 2)

### 3.1 What are the City's Emissions?

The city of Leicester is responsible for approximately 0.3% of the UK's emissions. In 2004 the City's emissions were about 2 million $CO_2$ equivalent**,** made up by the following:

| | |
|---|---|
| Commercial and Industrial | 51% |
| Domestic | 33% |
| Transport | 14% |
| Schools | 1% |
| Waste | 1% |

### 3.2 What are the targets?

The Leicester Partnership Climate Change Strategy (2003) proposed a target of 50% reduction of 1990 emissions of $CO_2$ by 2025. The city council had already adopted this as its own target in 1994.

### 3.3 What progress is the city of Leicester making?

De Montfort University are advising officers on how best to estimate and monitor emissions for the City as a whole.

A reduction across the City is a Local Area Agreement Target, but the level of reduction has not yet been agreed. It is not know if other members of the Partnership have adopted their target (or another) for their own services nor whether any commercial or individual organisations have adopted targets (with the exception of Marks & Spencer – see Appendix 3).

### 3.4 What influence can the Council have on the City's emissions?

3.4.1 Influencing the Commercial, Industrial and other public sector emissions (52%)

The Council has one EMAS target relating to the commercial, industrial and other public sector which relates to planning process (see Appendix 5).

Further work is needed to identify if the Council is maximising the impact it could have on the industrial, commercial sectors and other public sector through the use of the following:

- Planning policies **(CCAP 15)**
- Building regulation enforcement
- Advice/practical assistance/grant aid, through the Better Buildings Officer, the Leicester Energy Advice Centre, the Leicester Energy Agency and grant aid to and partnership working with Groundworks.
- Lobbying Government, including responses to consultation papers **(CCAP 14)**
- Involvement in EU funded projects.

The Council probably has least impact in this area and must work through the Leicester Partnership if major progress is to be made. Government action and the lead given by key commercial interests are crucial if those sectors are to contribute towards the City's 50% target.

The council should encourage the Leicester Partnership to invest more heavily in the "What's Your Plan" Campaign. Recently commissioned research suggests the need for a dedicated Sustainability officer within the partnership. City council officers suggest that this is supported with a brief to concentrate initially on Climate Change issues **(Recommendation 3.7) (CCAP 17).**

3.4.2 Influencing Domestic Emissions (33%)

This is the area which the Council has had most impact to date following the adoption of a Home Energy Strategy in 1993. The Council has directly improved the energy efficiencies of its own housing stock and by use of enabling power and partnership work, improved private homes though advice, grant aid and practical programmes. It has improved energy efficiency by 25% to date. The achievement of this target could be threatened by the increasing number of electrical appliances in homes continues to rise, potentially offsetting gains made in energy efficiency. (**CCAP18**)

It is estimated that the proposed Heat Metering project for the 3,500 Council tenants on our District Heating Schemes will save 30% on gas consumption. This project will now be considered as part of the overall assessment of extending CHP (**CCAP10**).

3.4.3 Transport (14%)

The Council deals with transport issues through its Local Transport Plan LTP. The aims of the plan are primarily to promote regeneration and deal with congestion. There is an LTP target to **limit growth** in emissions of $CO_2$ from traffic by 2010 to 7%. Transport in the city is the only area where the target is accepting growth in emissions rather than a reduction. This reflects the fact that local actions through the LTP can only hope to slow the growth in the rise of transport emissions. It will take national policy initiatives to reduce $CO_2$ emissions in this area.

There are 2 EMAS targets relating to the transport sector (see Appendix 5). These cover car travel at schools (which is on track) and reducing the morning rush hour car trips and improving air quality. The Council's influence in this area needs to be reassessed to identify the most effective actions.

Further work will be undertaken on introducing a methodology to monitor $CO_2$ emissions from the city's transport sector and reporting on how the target could possibly be improved. **(CCAP19)**.

The programme of helping schools produce Travel Plans will continue until at least March 2008 **(CCAP 23)**.

More work needs to be done with the Leicester Partnership and the commercial sector on encouraging them to produce Travel Plans and address their transport requirements (**Recommendation 3.6**).

3.4.4 Waste (1%)

By recycling and composting our household waste in the city there is potential to reduce $CO_2$ emissions in two key ways:

- recycling products uses less energy than creating new products from raw materials (e.g. each glass bottle recycled rather than newly manufactured saves enough energy to power a television for 15 minutes)

- Removing the biodegradable waste from the waste stream, preventing it going to landfill and composting anaerobically to produce biogas reduces the methane produced in landfill sites, and the bio gas can be used to produce electricity.

The EMAS target on recycling household waste has not been met, but the Bursom facility should be fully operational this year allowing the target of 40% to be met. (Appendix 5).

More work could be done by all organisations in the city to adopt the waste hierarchy of "Reduce, Reuse Recycle".

The potential for generating energy from waste will continue to be explored. (**CCAP21**)

## 3.5 What should the council's priorities be in relation to the city?

3.5.1 Buildings

A large part of the emissions from commercial, industrial and other public sector organisations will be, like the City Council, from energy use in buildings. There is an economic drive for all energy users to reduce consumption because of energy price rises.

Through a series of EU projects the Council has created a team (now within the Adults and Housing Department) known as the Leicester Energy Agency. The focus of its work is the energy efficiency of outside organisations. The Better Buildings Officer in Regeneration and Culture works with new developers and the planning service to encourage, amongst other things, energy efficiency and compliance with the Local Plan requirements on renewable energy and CHP.

There may be opportunities to sell our Intelligent Metering Service as the monitoring infrastructure already covers the whole city. The funding of this team relies heavily on EU projects and could be under threat from April 2008 onwards. The current NRF funded post of Better Buildings Officer will end in June 2007. It is proposed that the post is made permanent and directed to give an initial focus on energy issues, including exploring the potential for developing the Council's existing Combined Heat and Power Scheme. (**Recommendation 3.6**).

The Leicester Partnership needs to consider how to strengthen this work amongst partners in commerce and industry and the rest of the public sector. (**Recommendation 3.7**).

3.5.2 Transport in the City

Further work will be undertaken on introducing a methodology to monitor $CO_2$ emissions from the city's transport sector and reporting on how the target could possibly be improved. (**CCAP19 and 20**)

More work needs to be done with the commercial sector on encouraging them to produce Travel Plans and address their transport requirements. This should be discussed with the Leicester Partnership (**Recommendation 3.7**).

## 4. Mechanisms for implementation

Part I of the Climate Change Action plan is a corporate framework to address mitigation. It is proposed that over the next 12 months the following actions are taken:

- Develop departmental actions to implement the plan
- Develop an adaptation plan for services across LCC

The Action plan will be managed through Service Directors being responsible for actions agreed. Proposed actions will be widely consulted on to ensure that actions agreed provide value for money, reflect best practice and do not result in policy conflicts.

EMAS will continue to be used as the tool to monitor and manage overall performance and outcomes.

All reports prepared under the Climate Change Action plan will contain:

- Estimate of greenhouse gas emissions produced
- Costed options for actions to reduce emissions
- Estimate of relative impact of these options
- Barriers to action which the council faces
- Options to remove barriers
- Actions required by others (e.g.govt, individuals) and how council can encourage those
- Indicators of potential "perverse effects"

## 5. FINANCIAL, LEGAL AND OTHER IMPLICATIONS

***Financial Implications – Rod Pearson, Ext. 7108***

Many of the costs and financial benefits associated with the initiatives listed in the climate change action plan are unknown at this time. Some of these initiatives will require significant financial evaluation and risk appraisal.

Two funding bids, relevant to the Climate Change Action Plan, are fbeing put forward as part of the budget setting process for 2007/08 to 2009/10.

A service development bid of £100,000 has been included in the Regeneration and Culture Departmental Revenue Strategy. If approved it will fund:-

- A Better Buildings Officer (Appendix 1 CCAP 14) when NRF funds expire.

- A Climate Change Officer to prepare Part 2 of the Action Plan (adaptation) and ensure implementation of Parts 1 and 2.

- The commissioning of specialist advice on the cost and benefits of extending the Council's existing Combined Heat and Power Schemes (CCAP 10) and the procurement options.

A bid to set up a Schools Energy Agency is being considered as part of the Education Capital Programme. If approved, this agency would offer a technical service to Governing Bodies to implement energy measures.

In addition to the above, the Safer Stronger Communities Delivery Group of the Leicester Partnership is considering creating a sustainable development post, to be funded from the Partnership's resources (NRF).

***Legal Implications – Joanna Bunting, Ext. 6450***

Where new actions are being proposed reports will be brought forward with full legal implications attached.

***Other Implications***

| **OTHER IMPLICATIONS** | **YES/NO** | **PARAGRAPH REFERENCES WITHIN SUPPORTING PAPERS** |
|---|---|---|
| Equal Opportunities | YES | CCAP Appendix 1, Home Energy Strategy |
| Policy | YES | |
| Sustainable and Environmental | YES | All |
| Crime and Disorder | NO | |
| Human Rights Act | NO | |
| Older People on Low Income | YES | |

**Risk Assessment Matrix**

| **Risk** | **Likelihood L/M/H** | **Severity Impact L/M/H** | **Control Actions (if necessary/or appropriate)** |
|---|---|---|---|
| Failure to meet own targets | M | H | |
| Failure to meet city targets | H | H | |
| | L - Low<br>M - Medium<br>H - High | L - Low<br>M - Medium<br>H - High | |

## 6. Background Papers – Local Government Act 1972

## 7. Consultations

| **Consultee** | **Date Consulted** |
|---|---|
| Corporate Directors Board | 13.02.2007 |

## 10. Appendices

Appendix 1 – Climate Change Action Plan
Appendix 2 – Statistical information for Climate Change Action
Appendix 3 - Comparison with Marks and Spencer's plan
Appendix 4 – Government Estate Targets
Appendix 5 - EMAS Targets relating to Climate Change
Appendix 6 - Comparison with other Local Authorities (to follow)
Appendix 7 – LCC'S use of Energy

## 11. Report Authors

Ann Branson (extn.6802)
Service Director (Renewal, Options and Development)

Anna Dodd (extn.6732)
Team Leader, Environment Team

APPENDIX 1 - TABLE 1 – City Council's Own Consumption

**LEICESTER CITY COUNCIL'S CLIMATE CHANGE ACTION PLAN**
**PART 1 – MITIGATING EMISSIONS.**

| SOURCE OF $CO_2$ EMISSIONS | OUR TARGETS | PROGRESS ON TARGET | WHAT WE WILL DO | LEAD SERVICE DIRECTOR | RISK OF NOT REDUCING EMISSIONS |
|---|---|---|---|---|---|
| **Buildings and Water: 75% of LCC's emissions** (excluding schools) | **EMAS** 1.reduce consumption to 50% of 1990 level by 2025. | What we have done:-<br><br>Our baseline of 1990 was prior to Unitary Status. Our overall consumption has risen but figures are to be calculated taking into account new services. Through LAEF scheme a number of energy efficiency improvements have been made to our building.<br><br>Examples of action taken:-<br>• 280 sites with Intelligent Metering.<br>• Insulation in Sheltered housing.<br>• Efficient lighting at Linwood Centre<br>• Heating system improvements at Spence Street Baths and | • **CCAP 1 September 2007**<br>Report on the predicted impact of the recently adopted enhanced programme of investment to implement all possible measures that reduce our consumption of gas, electricity and water.<br><br>• **CCAP 2 April 2007**<br>Appoint Energy Advisor to work with all Council staff on use of energy in buildings, including ICT. | Ann Branson And Lynn Cave.<br><br>Ann Branson | **MEDIUM** - Good track record of increasing energy and water efficiency, but step change in action needed. Prudential borrowing identified as source of funding where savings can repay loan.<br><br>**MEDIUM** scope for reductions not yet quantified |

APPENDIX 1 - TABLE 1 – City Council's Own Consumption

| SOURCE OF $CO_2$ EMISSIONS | OUR TARGETS | PROGRESS ON TARGET | WHAT WE WILL DO | LEAD SERVICE DIRECTOR | RISK OF NOT REDUCING EMISSIONS |
|---|---|---|---|---|---|
| | | Braunstone Leisure Centre. Replacing cover at Aylestone, Evington and Cossington Street Swimming Pools | | | |
| **Staff commuting 15% of LCC'S emissions** | EMAS, LAA, LTP | Adoption of Leycroft Rd Travel Plan, the Council's first internal Travel Plan | • **CCAP 3 August 2007** Cabinet adopt Travel Plan for the whole of Council business<br>• **CCAP 4 August 07** Monitoring Report for Leycroft Road Travel Plan | Jeff Miller<br><br>Jeff Miller | **HIGH** A variety of actions will be assessed<br><br>To be assessed from monitoring report |
| **Vehicle Fleet 8% of LCC's emissions** | EMAS:<br>• Reduce litres of fuel used by fleet vehicles. | • Positive movement towards 5% reduction of the fuel used from 2000/1 to 05/6. | • **CCAP 5 September 07** Report on options for reducing emissions in vehicle fleet based on Energy Savings Trust assessment | Andy Keeling | **MEDIUM** Reassess when report received. |

APPENDIX 1 - TABLE 1 – City Council's Own Consumption

| SOURCE OF $CO_2$ EMISSIONS | OUR TARGETS | PROGRESS ON TARGET | WHAT WE WILL DO | LEAD SERVICE DIRECTOR | RISK OF NOT REDUCING EMISSIONS |
|---|---|---|---|---|---|
| **Staff business Mileage (2% of LCC's emissions).** | EMAS:<br>• Reduce mileage by staff in own cars. | • Increase in staff miles by 2005/06 of 7.8%. | • **CCAP 6**<br>**August 2007**<br>Cabinet adopt a Travel Plan for Council | Jeff Miller | **MEDIUM**<br>A variety of actions will be assessed including homeworking and business travel advice |
| **Waste**<br>**< 1% of LCC's emissions.** | EMAS:<br>Reduce amount of our own waste going to landfill (40% by 2005) | Not achieved target | • **CCAP 7**<br>**March 2008**<br>Review of commercial waste and LCC's own waste. Identify interventions needed to reduce biodegradable waste going to landfill. | Adrian Russell | **MEDIUM** |

APPENDIX 1 - TABLE 1 – City Council's Own Consumption

| SOURCE OF $CO_2$ EMISSIONS | OUR TARGETS | PROGRESS ON TARGET | WHAT WE WILL DO | LEAD SERVICE DIRECTOR | RISK OF NOT REDUCING EMISSIONS |
|---|---|---|---|---|---|
| **LCC's Procurement: Renewable energy produces minimal emissions.** | EMAS increase use of renewable energy from 0% to 20% by 2025. | 3.5% of energy purchased was renewable in 2004/05 but progress slipped back in 2006/07 as a result of a reduction in the amount of green electricity in the re-negotiation / extension of the Council's energy supply contract. | • **CCAP 8 June 2007** Assess cost of securing increased level of energy from renewable sources as part of the energy contract. | Ann Branson / Mark Noble | **MEDIUM** Dependant on national supply of renewable energy. Supply is currently higher than demand. Renewable energy may cost more. Partly dependent upon the opportunities to invest in renewables locally. |
| | | | • **CCAP 9 June 2007** Report for Cabinet on potential for wind turbines in the City. | Ann Branson | To be assessed |
| | | | • **CAP 10 September 2007** Report for Cabinet on potential to expand | Ann Branson | Report will assess |

APPENDIX 1 - TABLE 1 – City Council's Own Consumption

| | | | | | |
|---|---|---|---|---|---|
| | | | existing Combined Heat and Power with options for future action<br><br>• **CCAP 11 November 2007** Report on opportunities to encourage local biomass sources. | Andy Keeling | Report will assess |
| **LCC's Procurement of other goods and services. % of our emissions arising from procurement not easily measurable but of some signficance** | Achieve level 3 of the Sustainable Procurement Task Force (SPTF) Recommendations | Since 1999, EMAS has implemented "green" purchasing criteria. The Council currently meets Level 1 (Foundation) on all areas of the SPTF and Level 2 (Embed) for Policy Strategy & Communications. We are close to meeting Level 2 in several other areas. | • **CCAP 12 October 2007** Assess the costs and benefits of moving to Level 3 in procurement. | Mark Noble | **MEDIUM** Can set up national framework contract – need LCC purchasers to use it. |

APPENDIX 1 - TABLE 1 – City Council's Own Consumption

| SOURCE OF $CO_2$ EMISSIONS | OUR TARGETS | PROGRESS ON TARGET | WHAT WE WILL DO | LEAD SERVICE DIRECTOR | RISK OF NOT REDUCING EMISSIONS |
|---|---|---|---|---|---|
| **General** | | | • **CCAP 13 Sept 2007** Report on policy options for the council on becoming Carbon Neutral including an assessment of 'off-setting'. | Andy Keeling | Report will assess |

APPENDIX 1 – TABLE 2 – "Influencing the City"

**LEICESTER CITY COUNCIL'S CLIMATE CHANGE ACTION PLAN PART 1 – MITIGATING EMISSIONS**
**"INFLUENCING THE CITY"**

| ISSUE ENERGY | TARGET | PROGRESS ON TARGET | ACTIONS TO DATE | WHAT WE WILL DO | LEAD OFFICER AND RISK OF NOT REDUCING EMISSIONS. |
|---|---|---|---|---|---|
| **Commercial Industrial and other Public Authorities 51%** | **Planning**<br>All new developments to generate 12% of energy on site (target increase 1% per annum).<br><br>To create a sustainable built environment within the city | | **Planning**<br>Adopted City of Leicester Local Plan in January 2006.Including policies that promote; Energy Efficiency, Renewable Energy and Combined Heat and Power.<br><br>Adopted "Energy Efficiency and Renewable Energy Supplementary Planning Document".<br>Appointed NRE funded the Leicester Better Buildings (LBB) Project Manager who helps the Planning Service and those involved in construction projects meet targets.<br><br>Apply Sustainability Appraisal to all planning policy documents. | • **CCAP 14 March 2007**<br>Respond to Government consultation papers on:<br>• Planning Policy Statement; Planning and Climate Change;<br>• Water Efficiency in New Buildings.<br>• Zero Carbon Development.<br><br>• **CCAP 15 007 and 2008**<br>Treat Climate Change as a key issue in the preparation of the Local Development Framework.<br><br>• **CCAP 16 Ongoing**<br>Consider $CO_2$ emissions in development of plans | **Andy Keeling**<br><br>Risk not yet assessed<br><br>Leicester Better Building Officer post ends in June 2007.<br><br>**Andy Keeling**<br><br>**Andy Keeling** |

| ISSUE ENERGY | TARGET | PROGRESS ON TARGET | ACTIONS TO DATE | WHAT WE WILL DO | LEAD OFFICER AND RISK OF NOT REDUCING EMISSIONS. |
|---|---|---|---|---|---|
| | | | Created Leicester Better Buildings website.<br><br>The Energy Agency Team and Leicester Energy Advice Centre have implemented a number of projects with small and medium enterprises to increase energy efficiency.<br><br>'What's your Plan' campaign. On behalf of the Leicester Partnership the City Council has begun a climate change awareness campaign. Limited actions to date. | for Ashton Green.<br><br>• **CCAP 17**<br>The Leicester Partnership needs to consider mechanisms to encourage partners and other organisations throughout the City to create their own action plans and give advice and of their implementation.<br><br>Officer will discuss this with the Partnership and the future of the 'What's your Plan' campaign. | **Ann Branson**<br><br>**HIGH RISK**<br>To date advice to the commercial and industrial has been funded through limited time European projects. Large organisations (e.g. Marks & Spencer) in the City are beginning to adopt their own plans. However, if the Council and the Leicester Partnership are serious about addressing $CO_2$ emissions in the City there must be a step change in the approach to these sectors responsible for the majority of Cities emissions. |
| **Domestic emissions (33% of City emissions).** | EMAS and LAA<br><br>By 2011increase overall domestic energy efficiency by 30% | By 2006: 24.9% improvement.<br><br>On target for 2011. | Home Energy Strategy agreed in 1993.<br>Helping residents and tenants be more energy efficient at home. | • **CCAP 18**<br>**Ongoing**<br>Continue to implement home energy strategy | **LOW**<br>Provided existing level of Home Energy Services continue. As energy efficiency rises, citizens turn up the heat in their homes and are using |

| ISSUE ENERGY | TARGET | PROGRESS ON TARGET | ACTIONS TO DATE | WHAT WE WILL DO | LEAD OFFICER AND RISK OF NOT REDUCING EMISSIONS. |
|---|---|---|---|---|---|
| | | | | | more electrical goods |
| **Transport (14% of City's emissions** | **Local Transport Plan On track**<br>Limit growth emissions of $CO_2$ from traffic by 2010 to 7%. | Implementing the Local Transport Plan. The Local Transport plan has been graded as 'excellent' by national government but we have not yet measured changes in $CO_2$ emissions. | | • **CCAP 19 April 2007**<br>Identify a methodology to monitor emissions.<br>• **CCAP 20 October 2007**<br>Report to Cabinet on what needs to be done to make it practical for this target to be improved. | **Jeff Miller**<br>**HIGH RISK**<br>Transport is the only sector where the adopted target is to limit growth, rather than reduce emissions. To achieve overall $CO_2$ reduction in Leicester, other sectors will therefore need to reduce more. |
| **Waste Emissions 1%** | •EMAS, LAA and the Council Waste Strategy targets are to divert household waste from landfill in the proportion of 40% recycling & composting and 20% energy recovery. | 2005/06 show recycling rate of 17.20% (21,572 tonnes), composting rate of 9.71% (12,024 tonnes) and a recovery rate of 10.64% (13,174 tonnes) | 25 year integrated waste management contract for the collection, treatment and disposal of waste to the performance targets let to Biffa waste Services in 2003.<br>Developing treatment facilities at Bursom Industrial Park for the Segregation of the wheeled bin residual waste.<br>Developing treatment facilities at Wanlip Sewage Treatment Works for the anaerobic decomposition of the | • **CCAP 21 March 2008**<br>Evaluate the potential of energy from waste using the refuse derived fuel via gasification / pyrolysis in addition to our current market of cement production. | **Adrian Russell** |

| ISSUE ENERGY | TARGET | PROGRESS ON TARGET | ACTIONS TO DATE | WHAT WE WILL DO | LEAD OFFICER AND RISK OF NOT REDUCING EMISSIONS. |
|---|---|---|---|---|---|
| | | | Bursom organic waste stream to create biogas for electricity generation and digestate as a soil conditioner for land restoration /reclamation. | | |
| **SCHOOL BUILDINGS 1%** | | The LAEF loan scheme is available to schools to fund energy efficiency measures. EG. | | •**CCAP 22**<br>**May 2007**<br>Include proposal in capital programme for a fee based Energy Advice Agency Schools. (For all schools to take extensive action they need technical and financial advice). | **John Garret**<br><br>**LOW RISK**<br>Funding likely to be available from a number of sources but technical assistance is required for school governors. |
| **School Travel Plan <1%** | LAA target - The percentage annual increase in the number of schools with an approved school travel plan (STP). Achieve 100% STP coverage by March 2010. | 38% of schools have a travel plan in varying stages of implementation. Additional 15% being developed. | The Schools Travel Plan Officer is working through a programme of introducing Travel Plans to schools | • **CCAP 23**<br>**Until April 2008**<br>Continue programme of helping schools and calculate the contribution this makes to reduction of $CO_2$ emission. More resources are needed to<br>a) ensure each travel plan remains active (revisiting every 3 years)<br>**b)** address the problem of schools with | **Jeff Miller**<br>Impact of Travel Plans not yet assessed. Programme will need additional funding after April 2008. |

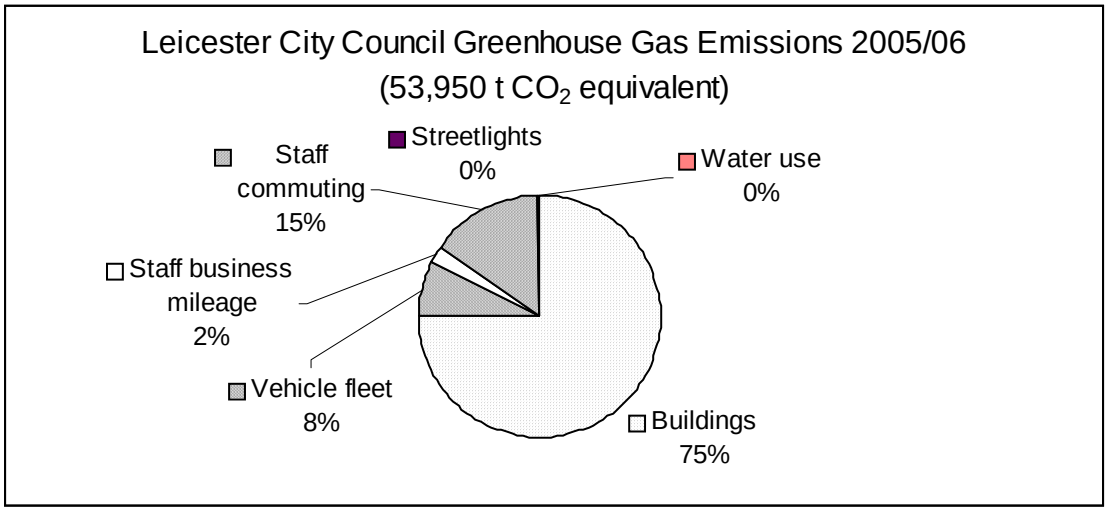
| ISSUE ENERGY | TARGET | PROGRESS ON TARGET | ACTIONS TO DATE | WHAT WE WILL DO | LEAD OFFICER AND RISK OF NOT REDUCING EMISSIONS. |
|---|---|---|---|---|---|
| | | | | failing travel plans | |

**Appendix 2**

**Statistical information for Climate Change Action Plan:**

Some background information on greenhouse gas emissions for Leicester City Council, Leicester schools and Leicester is given below.

**Figure 1. - Leicester City Council greenhouse gas emissions 2005/06**

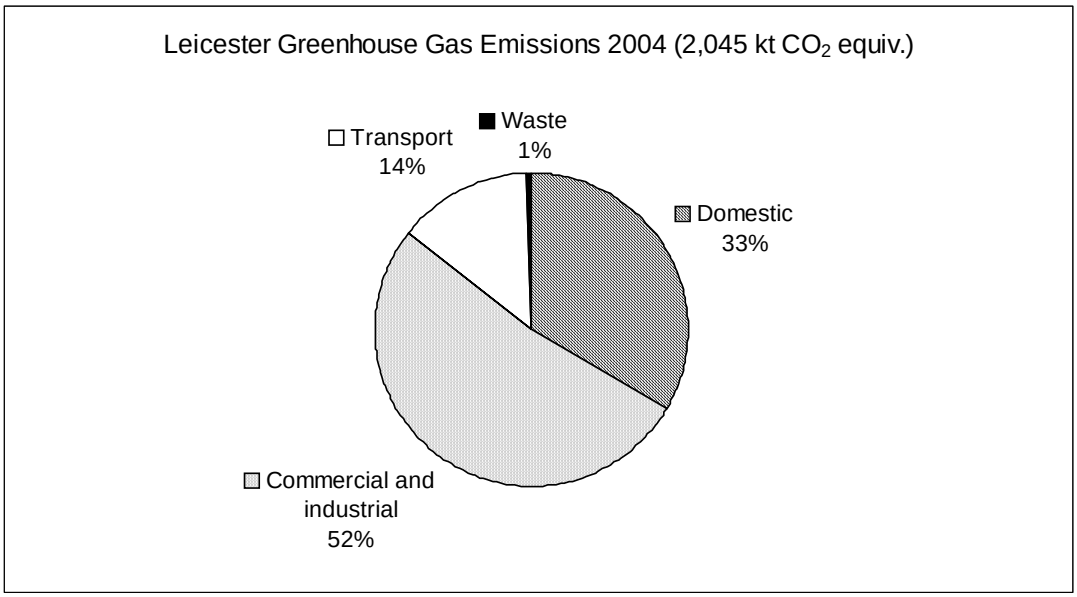



- Leicester City Council is responsible for about 3% of Leicester's total greenhouse gas emissions.
- Leicester City Council 2005/06 greenhouse gas emissions: 53,950 tonnes $CO_2$ equivalent (includes energy and water used in Council buildings, fuel use by the Council's vehicle fleet and staff business mileage and staff commuting, and energy use for streetlighting)
- About 75% of 2005/06 greenhouse gas emissions were related to energy use in Council buildings (40,444t), 15% estimated from staff commuting (8,138t), 8% from vehicle fleet and 2% from staff business mileage.
- 1990-2005/06: 25% reduction in total greenhouse gas emissions from 1990 baseline (including staff commuting) (72,340t equiv. $CO_2$ emissions to 53,950t equiv. $CO_2$ emissions)
- 1990-2005/06: 13% reduction in buildings greenhouse gas emissions

**Leicester schools greenhouse gas emissions 2005/06**

- For energy use in Leicester school buildings estimated greenhouse gas emissions are about 23,900 t $CO_2$ equivalent. (Other information, e.g. on travel to school, is not currently available.)
- Leicester schools' contribution of greenhouse gas emissions to the city as a whole (housing, business, etc.) is about 1% of Leicester's total.

**Figure 2. - Leicester city-wide greenhouse gas emissions 2004**




- Leicester's greenhouse gas emissions (2004): about 2 million tonnes $CO_2$ equivalent
- Leicester's energy use (2004): about 27,960 TJ (Terajoules) (about 7,770 million kWh)
- About 33% of greenhouse gas emissions from energy use in the domestic sector, about 52% from energy use in the commercial and industrial sectors, and about 14% from energy use in the transport sector. (Other greenhouse gas emissions sources are not currently included in the above chart but their contribution is relatively small.)

**APPENDIX 3**

| **Comparison of Marks and Spencers Climate Change Contents with LCC's proposed climate change action plan.** | |
|---|---|
| **Marks and Spencer Proposed Action** | **LCC Proposed Action** |
| Reduce $CO_2$ by 80% within 5 years (*need to ascertain base level*) | Reduce $CO_2$ emissions by 50% of 1990 levels by 2025. |
| 25% more energy efficient and powering stores with green renewable energy.<br>Trialling the use of anaerobic digestion – to create renewable energy generated by waste from our food halls, farms and factories. | Increase use of renewables from 0% to 20% by 2025. |
| Buy as much food from the UK and Ireland as possible | Green contracts through Pro 5 |
| Initiating 5 new research and development projects with UK growers. | Not applicable |
| Only using carbon offsetting as a last resort. | Investigate carbon-offsetting as part of LCC CCAP |
| Opening a model 'green' factory with a supplier, as well as model 'green' stores. | Already have a model Ecohouse supported by LCC and run by Groundwork in the city<br>Consider other "low carbon" models as part of Action plan |
| Using 50% bio-diesel in all lorries. | Vehicle fleet currently using 5% biodiesel, investigate using up to 50% biodiesel as part of Action Plan |
| Working with suppliers to share best practice and to mobilise suppliers to reduce their carbon emissions. | EMAS System already has processes in place to encourage best practice amongst our suppliers.<br>Revise and update these to improve performance as part of Action plan |
| Helping Customers reduce energy use in their homes by developing low carbon products and services and running a Carbon Challenge. | Citywide a range of initiatives from LCC, the Energy Advice Centre and Groundwork encourage citizens to reduce their $CO_2$ emissions. |

APPENDIX 4

# COMPARISON OF GOVERNMENT TARGETS FOR ITS OWN ESTATE AND LCC'S PROPOSED CLIMATE CHANGE ACTION PLAN

**VISION FOR THE GOVERNMENT ESTATE**

- A sustainably managed estate which is:
  - modern, resource efficient, with low energy buildings;
  - well conserved and managed land;
  - efficient use of space and ways of working; and
  - where the principles of sustainable development are embedded into our working practices.

| PRIORITY AREA | GOVERNMNET'S OWN TARGETS | LCC Action |
|---|---|---|
| **CLIMATE CHANGE & ENERGY** | **CARBON EMISSIONS FROM OFFICES**<br>• Reverse the current upward trend in carbon emissions by April 2007.<br>• Reduce carbon emissions by 12.5% by 2010-11, relative to 1999/2000 levels.<br>• Reduce carbon emissions by 30% by 2020, relative to 1999/2000 levels. | More ambitious over longer period. 50% by 2025 |
| | **CARBON EMISSIONS FROM ROAD VEHICLES**<br>• Reduce carbon emissions from road vehicles used for Government administrative operations by 15% by 2010/11, relative to 2005/2006 levels. | Slightly less ambitious – target only 5% for fleet and 15% for staff mileage |
| | **CARBON NEUTRAL**<br>• Central Government's office estate to be carbon neutral by 2012. | This may be achieved by a commitment to buy renewables to cover all remaining purchases. City Council less ambitious: only 2016 renewables by 2025 |

| | | |
|---|---|---|
| | **ENERGY EFFICIENCY**<br>• Departments to increase their energy efficiency per m² by 15% by 2010, relative to 1999/2000 levels.<br>• Departments to increase their energy efficiency per m² by 30% by 2020, relative to 1999/2000 levels. | More ambitious over a longer period. 50% by 2025. |
| **SUSTAINABLE CONSUMPTION & PRODUCTION** | **WASTE ARISINGS**<br>• Departments to reduce their waste arising by 5% by 2010, relative to 2004/2005 levels.<br>• Departments to reduce their waste arising by 25% by 2020, relative to 2004/2005 levels. | No target |
| | **RECYCLING**<br>• Departments to increase their recycling figures to 40% of their waste arisings by 2010.<br>• Departments to increase their recycling figures to 75% of their waste arisings by 2020. | No internal target |
| **NATURAL RESOURCE PROTECTION** | **BIODIVERSITY**<br>• Departments to meet or exceed the aim of having 95% of Sites of Special Scientific Interest (SSSI's) in sole ownership or control in target condition by 2010. | No internal target |
| | **WATER CONSUMPTION**<br>• Reduce water consumption by 25% on the office and non-office estate by 2020, relative to 2004/2005 levels.<br>• Reduce water consumption to an average of $3m^3$ per person/year for all new office builds or major office refurbishments | Council target of 50% by 2005/06 needs extending<br>. |

| GOVERNMENT TO MANDATE | LCC ACTION |
|---|---|
| • Departments to adopt The Carbon Trust's Carbon Management Programme – involves the proactive management to the risks and opportunities relating to climate change mitigation. | Investigate LCC took part in the first phase of this management programme |
| • The application of BRE's Environmental Assessment Method (BREEAM) excellent standards, or equivalent, to all new builds and major refurbishments. | Further report proposed in the Action Plan. |
| • Accepted elements from the Sustainable Procurement Task Force National Action Plan. | Investigate |
| • OGC's Property Benchmarking Scheme – aimed at improving the efficiency and effectiveness of corporate estate management. | Investigate |
| • All Departments to have Environmental Management Systems based, or modelled upon, a recognised system. | EMAS in place |
| • Data collection and reporting – identification of core data to be reported against the new targets. | EMAS |
| • All Departments to encourage staff to take an active role in volunteering in the community. | Scheme in place |
| • All Departments to conduct sustainability appraisals of office relocations. | Proposed in this report |
| **Existing Sustainable Operational Commitments (to continue until completion)**<br>• Departments to source at least 10% of electricity from renewables (31 March 2008) | More ambitious target over longer period (20% by 2020) |
| • Departments to source at least 15% of electricity from Combined Heat and Power (2010) | No specific target, but feasibility of extending existing CHP being investigated |
| • **The above sustainable operational targets to apply for the reporting period April 2006 – March 2007** | EMAS |

**APPENDIX 5**

## Table 1.Summary of progress towards corporate environmental improvement objectives

| Target No. | Environmental Improvement Objective (with associated target in brackets) | Change Since Last Year | Overall Progress Towards Target | Additional Explanation |
|---|---|---|---|---|
| 4.3<br><br>Indirect | Reduce car travel at schools with travel plans *(25% reduction in car travel by 2011)* | **-ve** | **On track** | Between 2004/5, and 2005/6 car travel reduced by 4%. Whilst this is slightly less than last year (which was 5.6%), we are still on track to meet the target. This indicator is likely to be redefined by Dft during the LTP2 period, and this will form the basis for an amended EMAS target. |
| 6.1<br><br>Indirect | Increase recycling of household waste *((40% of household waste collected in 2005/06 to be recycled or composted)*<br>*Proposed to extend this target period by a further year.* | **+ve** | **Not achieved this year Proposed extension** | In 2005/06 the recycling rate doubled from 13.59% in 2004/5 to 27.14%. Whilst this met the Government's recycling rate for local authorities, it fell short of the EMAS target. This is attributed to the Bursom facility remaining at 50% capacity during the reporting period. It is recommended to extend the target period by a further year to allow the facility to operate at full capacity. |
| 11.1<br>**new**<br><br>Indirect | To create a sustainable built environment within the city *All planning applications for major developments, to apply the City of Leicester Local Plan Policy BE16 with respect to the generation of on- site renewable energy. (100% compliance in 2007/8)"* | **New** | **New** | The base year for this target would be 2006/7, which is the first complete financial year after the policy was adopted in December 2005.<br>This is an interim target, as it relates only to renewable energy. Cabinet will receive a further paper on sustainable construction, by March 2007, which identifies a broader target for sustainable construction |
| 4.1<br><br>Indirect | Improve air quality within the city *(To achieve national air quality objectives for nitrogen dioxide by 2005)*<br>Proposed amended target*: To achieve the 4 key point targets set in the Local Transport Plan for air quality* | **Not conclusive** | **Not conclusive** | It is not possible to establish a clear trend from the data collected from the 10 air quality monitoring stations so we can't conclude whether this target was met.<br>Road traffic is one of the major contributors to poor air quality in Leicester. For this reason, it is proposed to adopt air quality targets, which are integrated into the Central Leicestershire Local Transport Plan 2006-11.<br>However, it should be noted that the proposed amended target is less rigorous than that suggested to cabinet in April 2006. Based on modelling projections of the air quality impacts of the measures in the Local Transport Plan, the proposed new targets fall short of the air quality Limit Value for 2010 (the target proposed previously, in April 2006).<br>In addition, a major non conformance was raised by Internal audit in 2005/6 for "little commitment to reducing absolute Nox emissions from transport in the city. |
| 1.3<br><br>Direct | Reduce the fuel used by staff vehicles at work (not commuting) *(**1.3a:** Reduce the fuel used by fleet vehicles (5% reduction of the fuel used in 2000/01 by 2005/06).* | **1.3b -ve**<br><br>**1.3a not yet known** | **1.3b not achieved**<br><br>**1.3a Not yet** | In April 2006, it was proposed to cabinet to improve the target by reporting in future on a) liters of fuel used by the fleet and b) miles claimed by staff.<br>In 2005/6 private staff mileage increased by 7.8%, although there is still an overall reduction |

| | | | | |
|---|---|---|---|---|
| | ***1.3b:*** *15% reduction in the number of miles travelled by staff in private vehicles by 2005/06 (baseline 1999/2000).* | | **known** | of 7.9% since 1999/00. This is insufficient to meet the 15% reduction target.<br>Data is not yet complete for the fleet, but early indications are that there is an increase in consumption recorded for 2005/6. Over the previous 3 years there is no overall trend. |
| 4.2<br><br>Indirect | Reduce morning rush hour car trips to the city centre *(return to 2000/01 levels by 2006/07 and a 1% decrease by 2010/11)* | **-ve** | **Not conclusive** | Data for 2005/06 records an increase in trips of 1.8% above the 2000/01 levels. There is no overall trend over the period. This indicator is no longer included in the next Local Transport Plan (LTP2). Once this adopted, an amended EMAS target will be proposed, which falls within LTP2 |
| 1.1<br><br>Direct | Reduce the council's total building energy consumption *(to 50% of the 1990 level by 2025/26)* | **-ve** | **Not on track** | Energy consumption in council buildings in 2005/06 continued to rise slightly from the previous reporting period, which now represents an increase of 2.6% from the base year 1990. The reasons for the increase are as reported in April: the inclusion of new buildings such as Braunstone Leisure Centre and the Depot on Rutland Street, which highlights the need for a more rigorous council process for delivering low carbon buildings in future. In addition the CHP boiler at St Matthews remained out of action in 2005/6. |
| 1.2<br><br>Direct | Increase the council's use of renewable energy *(from 0% in 1997 (Mar) to 20% of energy requirement in 2020/21)* | **-ve** | **Not on track** | In 05/06 22.3% of electricity used in council buildings was renewable, which represents only 3.7% of total energy consumption. A full report on actions to address this target will be received by Cabinet in December. |
| 7.1<br><br>Direct | Reduce potable water used in council buildings *(5% reduction of 2000 levels by 2005/06)* | **-ve** | **Not achieved** | Data for 2005/06 is showing an increase of 31.8%. This is unexpected and requires further investigation. For the previous two years we have recorded a decrease in consumption of 22.6% and this was attributed to the Intelligent metering programme, which was rolled out further in 2005/6. |

Source: EMAS Annual Monitoring Report September 2006

**Table 2.**
**Summary of progress with the development of targets and/or monitoring systems for corporate environmental improvement objectives**

| Target no. | Environmental Improvement Objective (with associated target in brackets where developed) | Progress with development of data collection monitoring system and/or target |
|---|---|---|
| 2.1 | Reduce the energy consumption of homes within the city i.e. increase SAP rating of houses | Target development is ongoing. Records have increased by about 1,000, but this is still not a representative picture of the city as a whole. |
| 3.1 | Reduce vehicle emissions from fleet and lease cars | Target development is ongoing. Investigations are underway, in partnership with the vehicle fleet manager, to establish the best technology available to reduce vehicle emissions |
| 5.1 | Reduce the amount of council waste going to landfill *(40% of City Council waste to be recycled by 2005)*<br>*Appendix 4 proposes amendment to target wording to restrict the target scope to council office waste.* | This target has expired without being able to find a viable data collection method.<br>*The costs involved in operating a separate vehicle specifically for council buildings was not commercially viable and therefore council waste is collected alongside trade waste in the same vehicle. However, it may be possible to collect a figure around paper collected for recycling (currently the scheme is only in place in New Walk Centre).* |
| 6.2 | Reduce the amount of construction waste going to landfill | A planning application is being developed for a different site at Sunningdale Road .The new site will avoid the concerns of local residents to the previous site and reduce haulage distances. The target will be developed once the facility is operational. |
| 8.1 | Reduce consumption of paper *(5% reduction in the quantity of paper purchased in 2000, by 2003)* | Monitoring paper consumption requires all paper to be purchased through Creativity Works or, if purchased elsewhere, the quantity of paper reported to Creativity Works. Unfortunately, a lot of paper is purchased from external organisations and not reported to Creativity Works making it impossible to obtain reliable data on paper use. |
| 8.2 | Increase the use of recycled paper *(98% of the paper purchased in 2003 to be 100% recycled post consumer waste)* | Monitoring the use of recycled paper requires all paper to be purchased through Creativity Works or, if purchased elsewhere, the recycled content of the paper reported to Creativity Works. Unfortunately, a lot of paper is purchased from external organisations and not reported to Creativity Works making it impossible to obtain reliable data on recycled paper use. |
| 9.3 delete | Develop measurable indicators of ecological quality and complete the first monitoring programme by 2010/11 | Proposed for deletion.<br>Due to restrictions in resources, this target has never progressed. There is some duplication with target 9.2 |

Source: EMAS Annual Monitoring Report 2006

**Appendix - 6 Comparison with other Local Authorities – the Beacon Sustainable Energy authorities**

The authorities outlined below are the group that were selected by the IDEA for their innovative work on sustainable energy, and therefore we have chosen to benchmark against them.

**Table 1 – Targets Set**

| Theme | **Woking Borough Council (district wide)** | **Nottinghamshire (county wide)** | **Cornwall (county wide)** | **High Peak Borough Council** | **Lewisham Borough Council** | **Shropshire County Council (county wide)** | **Leicester City Council** |
|---|---|---|---|---|---|---|---|
| Energy and Buildings | 80% reduction in CO2 equivalent by 2090 (from 1990 level), in steps of 10% up to 2050 and 5% from 2050 to 2090 | 20% CO2 reduction by 2010, 40% by 2030,60% by 2050, 80% by 2070, carbon neutral by 2100 (from 1997 baseline) | as national targets- 20% reduction in carbon emissions by 2010. To put ourselves on a path to cut the UK's carbon dioxide emissions by some 60% by about 2050 with real progress by 2020 | Corporate target for $CO_2$ reduction 20% from 1996/7 to 2003 | | 10% reduction in greenhouse gas emissions by 2010 (from 2000 levels) | To reduce $CO_2$ levels to 50% of 1990 levels by 2025 (city wide) |
| | Maintaining the HECA target of 30% improvement in energy efficency by march 2006 | Carbon management programme (CMP)adopted by authority November 2006 | | Aims to improve domestic energy efficiency by 30% by 2011-12. | | | Reduce the council's total building energy consumption (to 50% of the 1990 level by 2025/26) (EMAS) |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Purchasing 20% of council's electrical energy requirements from renewable sources by 2010/11 | | | | | | Increase the council's use of renewable energy *(from 0% in 1997 (Mar) to 20% of energy requirement in 2020/21)*(EMAS) |
| | Purchasing 100% of council's electrical and thermal energy requirements from sustainable sources (CHP) by 2010/11 | | | | | | Reduce potable water used in council buildings *(5% reduction of 2000 levels by 2005/06)*(EMAS) |
| Transport | Seeking to integrate the Govt target for low carbon cars to apply to council vehicles and businesses by 2010/11, as part of revised Staff Travel Plan | A number of actions proposed in CMP | | | | | Reduce car travel at schools with travel plans *(25% reduction in car travel by 2011*(EMAS) |
| | | | | | | | Reduce the fuel used by staff vehicles at work (not commuting) *(**1.3a:** Reduce the fuel used by fleet vehicles (5% reduction of the fuel used in 2000/01 by 2005/06).(*EMAS) |
| | | | | | | | Reduce morning rush hour car trips to the city centre *(return to 2000/01 levels by 2006/07 and a 1% decrease by 2010/11)*(EMAS) |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Waste | Zero Waste Strategy to achieve govt targets of 30% recycling 2005/6 and reduce biodegradable waste to landfill by 65%in 2020 compared to 1995 levels | A number of actions proposed in CMP | | | | | 40% reduction in household waste going to landfill (EMAS)<br><br>Reduce amount of our own waste going to landfill (40% by 2005) (EMAS) *currently being amended* |
| Procurement | - | | | | | | |
| Planning | Any new land-use must see a reduction of $CO_2$ emissions by 80% compared to the previous use | | | | | | SPD on renewable energy has a target of 12% renewables, increasing by 1% a year |

## Table 2 - Key achievements to date

| Theme | **Woking Borough Council (district wide)** | **Nottinghamshire (own council plan)** | **Cornwall (county wide)** | **High Peak Borough Council** | **Lewisham Borough Council** | **Shropshire County Council** | **Leicester City Council** |
|---|---|---|---|---|---|---|---|

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Energy and Buildings | Council has reduced own $CO_2$ emissions by 77% from 1990 baseline by March 2004 | In last 8 years have made a 27% reduction in $CO_2$ in their building stock (largely through fuel switching) | | Carbon emissions from council offices and leisure centres fell by 21% in 2002/3 compared with the 1996/7 base. | Bought 100% renewable electricity from 2001 to 2004 and is now tendering a long-term renewable energy contract for major council supplies and street lighting. | County wide $CO_2$ emissions are estimated to be 2.3% lower in 2000 than 1990(due to fuel switching | 3.5% of energy purchased was renewable in 2004/05 but progress slipped back in 2006/07 as a result of a reduction in the amount of green electricity in the re-negotiation / extension of the Council's energy supply contract. |
| | HECA Target – achieved a 26% improvement by March 2004 | | | Domestic energy efficiency improved 16.6% since 1997/8 | Energy procurement savings of over £1m a year from 1998 – 2003. | County Council's own emissions reduced by 20% since 1990 | 280 sites with Intelligent Metering. Insulation in Sheltered housing. Efficient lighting at Linwood Centre Heating system improvements at Spence Street Baths and Braunstone Leisure Centre. Replacing cover at Aylestone, Evington and Cossington Street Swimming Pools |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | 10,000 packages of central heating and energy efficiency improvements to council properties since 1994 at a cost of approx £30 million.<br>Under HECA in 2004, the Borough reported a total energy saving of 16.7% since 1996. approximately 90,000 tonnes of CO2 saved. | Have a wide range of actions in their plan from 2002, not sure on how they have progressed. | |
| | 7% of council's electrical energy requirements from renewable sources | | | | The boilers for 30 sites are controlled remotely by the SRG, in order to minimise energy consumption, whilst optimising operating conditions for staff and residents. | | HECA Target: By 2006: 24.9% improvement. On target for 2011. |
| Transport | Surveyed vehicle fleet using EST and developed standard for lease cars and action on compulsory car club for staff. | | | County wide car share scheme with over 500 users | A contract was then tendered in spring 2006 through full EU process, with the result that all fleet diesel vehicles now use a 5% biodiesel mixture**.** | | Positive movement towards 5% reduction of the fuel used from 2000/1 to 05/6. |
| | | | | | | | 38% of schools have a travel plan in varying stages of implementation. Additional 15% being developed. |
| Waste | September 2006, achieved 30% | Significant waste reduction from | | | | | 2005/06 show recycling rate of |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | recycling | various offices, using Environmental champions | | | | | 17.20% (21,572 tonnes), composting rate of 9.71% (12,024 tonnes) and a recovery rate of 10.64% (13,174 tonnes) |
| Procurement | Developed a procurement strategy including sustainable procurement | | | | The advanced Guide to Green Procurement (GPP) was produced for use by officers and contractors and agreed by Mayor and Cabinet in February 2006. The GGP should help council officers when making procurement decisions regarding products or services. | | Since 1999, EMAS has implemented “green” purchasing criteria. |
| Planning | Developed a Climate Neutral Practice Note to work towards achieving an 80% reduction in emissions Declaring Woking Climate Neutral and setting up Climate Change fund | | | | | | Adopted City of Leicester Local Plan in January 2006.Including policies that promote; Energy Efficiency, Renewable Energy and Combined Heat and Power.<br><br>Adopted "Energy Efficiency and Renewable Energy Supplementary Planning Document". |

**APPENDIX 7**

# Consumption of Energy in Council's Buildings 2005/06

48% of our overall energy consumption is for District Heating. This supplies over 3,500 tenants and a recharge is made with their rent.

The top consumers of energy in our buildings and facilities are: -

| | |
|---|---|
| New Walk Centre | 7.6% |
| Braunstone Leisure Centre | 5% |
| Leicester Leys Leisure Centre | 3.5% |
| Gilroes Crematorium | 2.5% |
| Aylestone Leisure Centre | 2.1% |
| Lancaster Boys and Jonathan North District Heating | 2.1% |
| Indoor Market | 2.00% |
| The rest | 75.2% |
| **Total:** | **100%** |

Energy *consumption* does not necessarily equate to *emissions*, nor do these figures imply any level of energy efficiency. The Energy Services Team is doing further work on assessing these issues **(CCAP 1)**.