

# Executive

## Use of Natural Resources Project

23 May 2011

### Report of Head of Environmental Services

#### PURPOSE OF REPORT

This report considers the progress of the Use of Natural Resources Delivery Group and the overall progress of the Council in responding to climate change and energy efficiency within its own operations.

This report is public
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#### Recommendations

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The Executive is recommended:

- (1) To note the achievements of the Use of Natural Resources project;
- (2) To support Cherwell's Carbon Management Plan (Appendix 1) reducing 22% of the Council's carbon emissions by 2014/15 through improving the energy efficiency of its own operations; and
- (3) To approve the Energy Policy (Appendix 2) which sets out the how the Council will use energy efficiently.

#### Executive Summary

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##### Introduction

- 1.1 National government believes local government has a significant role to play on the climate change agenda. In March 2011, the Secretary of State for Energy and Climate Change, signed a Memorandum of Understanding with the Local Government Group that recognised the pivotal role that local councils have in tackling climate change through showing leadership and encouraging local communities to take action to mitigate and to adapt to a changing climate.
- 1.2 Nationally the target is to reduce CO<sub>2</sub> emissions by 20% by 2020 and 80% by 2050. To reflect the importance of local authorities leading change locally on the climate change agenda, central government continues to require local government to report on an annual basis CO<sub>2</sub> emissions from across our estates and operations.

- 1.3 The Council's effective use of natural resources became the focus of the Audit Commission's Use of Resources Assessment in 2008/09. An initial assessment by the Commission found satisfactory arrangements in place but drew attention to energy consumption in sports centres leading to high CO<sub>2</sub> emissions, a lack of baseline performance data and no programme for future energy efficiency improvement. This was despite a consistent reduction in CO<sub>2</sub> in most areas due to past Council initiatives.
- 1.4 The Use of Natural Resources Delivery Group formed to improve the Council's Use of Resource Assessment has involved key staff from across the Council and used multiple work streams to address numerous areas simultaneously. With great support from across the Council, it has focused on achieving real reductions in the Council's CO<sub>2</sub> emissions.
- 1.5 Although the end of the Use of Resources assessment was announced in 2010, the Use of Natural Resources Delivery Group has continued to focus on reducing the Council's emissions through improving energy efficiency.
- 1.6 This report highlights the achievements of the project including reducing CO<sub>2</sub> emissions by 4.5% in 2010/11 and generally improving the Council's environmental performance. It also proposes actions to build on this success into 2011/12 by implementing a Carbon Management Plan.

### **Proposals**

- 1.7 To continue building on the successes of the Use of Natural Resources project in addressing and improving the Council's environmental performance into 2011/12
- 1.8 Agree future priorities and draft action plan which forms the basis of continuing work of the Use of Natural Resources group during 2011/12 in line with the Carbon Management Plan
- 1.9 Agree the Energy Policy which outlines how the organisation will use energy in an efficient manner.

### **Conclusions**

- 1.10 A co-ordinated cross-service approach is employed to take action and to drive forward and support Cherwell's Carbon Management Plan reducing 22% of its carbon emissions by 2014/15
- 1.11 The strategic themes of the Carbon Management Plan will derive largely from the Use of Natural Resource Delivery Group and its work streams.
- 1.12 A new Energy Policy will help further the success of carbon reduction work as part of the Carbon Management Plan.

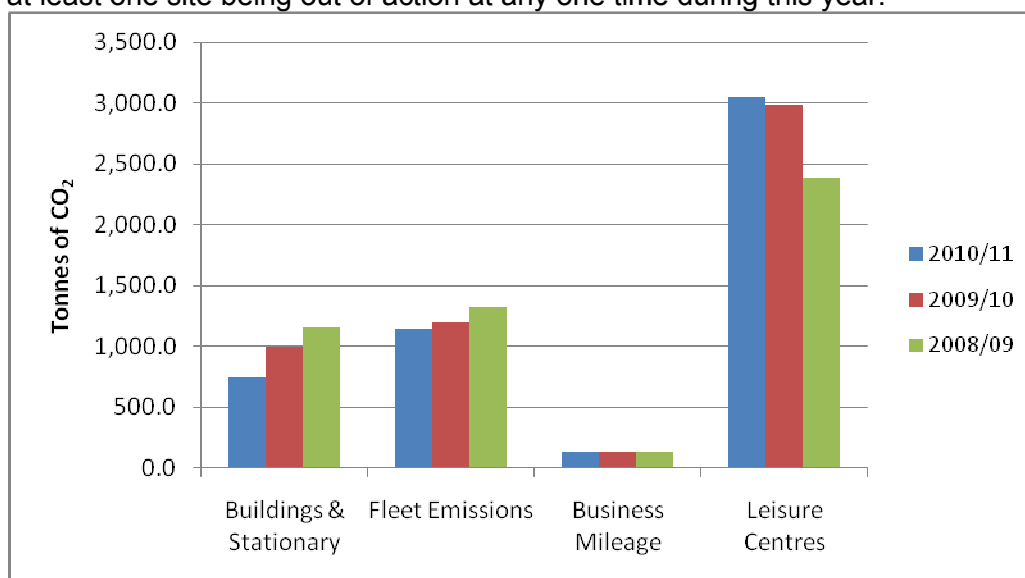
## Background Information

2.1 Measurement of the Council's carbon dioxide (CO<sub>2</sub>) emissions has previously been assessed by National Indicator (NI) 185. In the first NI 185 baseline year (08/09), emissions from Cherwell District Council operations were 5,002 tonnes. The main sources of these emissions were:

- Leisure Centres (48%)
- Corporate buildings (23%)
- Transport (26%)
- Staff travel (3%)

2.2 The figure below demonstrates that overall emissions from the Council's own operations have fallen in 2010/11 by 4.5% compared to 2009/10 but have risen by 1.5% compared to 2008/09. Out of the four main emission sources (buildings, leisure centres, fleet emissions and staff travel), buildings and fleet emissions have substantially reduced their emissions in 2010/11 by 25.3% compared to 2009/10 and 36% compared to 2008/09.

2.3 However, leisure centres have increased by 2.2% (since 2009/10) and by 27.8% since 2008/09. This is due to the artificial low baseline data in 2008/09 because of the substantial refurbishment activities at leisure centres that led to at least one site being out of action at any one time during this year.



### Cherwell's Low Carbon Management Plan

2.4 Cherwell District Council participated in the Carbon Trust's Carbon Management Programme (LACM8) from May 2010 to March 2011. This plan represents the completion of the programme and sets out our path for reducing CO<sub>2</sub> emissions over the next five years.

2.5 Our carbon reduction target is to reduce CO<sub>2</sub> emissions from our own operations by 22% from a 2009/10 baseline year by the end of financial year 2014/15. This equates to a reduction of 1,225 tonnes of CO<sub>2</sub> between 2010/11 and 2014/2015.

2.6 With energy costs rising and predicated to do so continually in the future, it is

essential that efficiencies are adopted to reduce this cost. With a 22% reduction target in emissions Cherwell District Council energy costs will be significantly reduced by approximately 5% per annum accumulating to just over a £1,000,000 worth of savings over 5 years.

- 2.7 The Carbon Management Plan's reduction target of 22% will be delivered through the Use of Natural Resources Delivery Group. This delivery group meets on a monthly basis and reports to the Accommodation Project Board and Corporate Management Team on a regular basis.
- 2.8 The Carbon Management Plan projects are identified within specific work streams- and are in line with the workstreams for the Use of Natural Resources Delivery Group.

### **Use of Natural Resources Delivery Group**

- 2.9 The scope of the project agreed by the Corporate Management Team in March 2010 was aimed at achieving improved CO<sub>2</sub> emission performance, providing clear leadership and improving systems for ensuring good performance.
- 2.10 A project team, the Use of Natural Resources Delivery Group, was formed from an existing Energy Efficiency Taskforce with revised terms of reference. Eight workstreams were identified, and each workstream lead was required to devise a work package specifying the tangible outcomes and delivery dates for their area.
- 2.11 The eight workstreams and their overall objectives were as follows;
  - Sports centre energy use – securing agreement with Parkwood on how to make changes in sports centres and their operation to result in reductions in CO<sub>2</sub> emissions
  - Property improvements – addressing any sub-standard energy performance in the Council's buildings and identifying a programme of improvements
  - Technology enhancements – addressing the high energy consumption of computers and servers by completing the server virtualisation programme and rolling out installation of thin client terminals to reduce energy consumption
  - Fleet use optimisation – achieving fuel reduction targets and reviewing routes to minimise fuel usage
  - Sustainable procurement strategy – implementing the strategy and ensuring that sustainability forms a key part of procurement activities
  - Workplace travel plan – assessing staff travel patterns and devising a plan aimed at reducing non-sustainable methods of travel
  - Data and performance management – improving the quality of the Council's performance data on environmental issues and how it uses this data to manage improvements
  - Culture change and best practice – engaging staff across the Council to embed good practice and share successes.

## **Achievements and outline of the work programme 2011/12**

2.12 A project approach has been used to bring together the various workstreams and ensure a sustained focus is kept on progress since the project commenced in March. An overview of the achievements and future actions of the project to date are set out below against the individual workstreams.

### 2.13 Sports Centre energy use

- There has been a good reception from Parkwood on working together in order to reduce the energy consumption at the Council's leisure centres. Under the terms of their contract, such reductions benefit them financially, although the Council will benefit from the reduced CO<sub>2</sub> emissions which are counted against it as 'council operations'
- More accurate and frequent information on energy usage is now collected at the leisure centres, and proposals forwarded by the Carbon Trust to help minimise consumption are being explored with Parkwood.
- All sports centres were visited and assessed by the Carbon Trust and a detailed action plan has been developed that will be implemented this year.
- A feasibility study for a biomass boiler has been commissioned for Bicester Sports Centre.
- A project for photovoltaic (PV) panels at Spiceball and Bicester Leisure Centres has been approved as part of the 2011/12 capital programme.
- However, there is recognition that there are conflicting priorities in terms of encouragement for residents to make use of the recreation facilities and the cost of the energy to run them. For example, the more swimmers who use the pools, the greater the energy used. The main aim is to work towards protecting Cherwell District Council from increases in energy tariffs by reducing energy where feasible, using energy efficiently and promoting the use of on site renewables such as solar panels or/ and biomass.

### 2.14 Property improvements

- The Thorpe Lane Depot refurbishment project has been used to improve the environmental performance of the facility and to remove any asbestos from the site.
- Depot works completed to date include the installation of PV solar panels on the roof of the refurbished workshop. The Council now benefits from use of the 'free electricity', and from the revenue generated by feed-in tariff returns. The PV solar panels installed at Thorpe Lane Depot in 2010 are on target to generate 12,474 kWh (saving 6.7 tonnes of CO<sub>2</sub> ) and generating income or saving electricity of more than £5,000 per year.
- All buildings at the depot are all being well insulated and contain energy efficient lighting. The new roofs on the vehicle workshop and in the warehouse have improved levels of insulation and larger areas of skylights have been installed to make the most of natural daylight instead of artificial light. The lighting schemes come on and off through the use of motion sensors.

- As part of redevelopment a biomass boiler is being installed to serve the offices.
- Water usage at the depot has been substantially reduced through the use of a vehicle wash down facility which recycles a high percentage of the water used.
- A bid for photovoltaic (PV) panels at Bodicote House was approved as part of the 2011/12 capital programme.
- A contract has recently been let for the refurbishment of Old Bodicote House. It includes environmental initiatives such as: energy efficient lighting, energy efficient hand dryers for the toilets, water efficient taps and cisterns, waterless urinals, secondary glazing to all windows to reduce heat loss and the replacement of the existing gas boilers with a biomass boiler.
- Bodicote House has also had alterations to lighting with the use of Passive Infra Red (PIR) sensors to switch off lights in areas such as kitchens, print rooms, meeting rooms, some toilets and some corridors when not in use, and to reduce the lighting level in areas where lighting levels do not need to be as high. LED (Light Emitting Diodes) light fittings have been installed as part of the lighting scheme in the main reception area. Modern efficient cooling systems have been installed in the IT server room.
- Sub-meters have been installed and existing energy meters are being upgraded to allow the use of smart meters technology. These will ensure that energy consumption is monitored accurately and routinely, leading to better estimates of the Council's CO<sub>2</sub> emissions from its buildings, and for assessing the performance of energy savings initiatives.

#### 2.15 Technology enhancements

- The server virtualisation programme is complete, leading to significant reduction in energy consumption. The reduction in space required by the new (more efficient) servers will lead to a reduced requirement for air condition, leading to further energy reductions.
- The original plan to roll out thin client technology has been superseded by improved technology becoming available. The new units identified will still have very low energy consumption and are being rolled out throughout the financial year 2011/12.

#### 2.16 Fleet use optimisation

- Environmental Services has continued to reduce its fuel usage and has met a 2.5% reduction in 2010/11 despite needing to adapt to a change in collection arrangements for food waste. Further optimisation of routes will be possible during 2011/12 with an implementation of revised rounds

#### 2.17 Sustainable procurement strategy

- The Sustainable Procurement Strategy and a Sustainable Procurement Guide has been rolled out during the year, with sustainability being assessed as part of every procurement exercise. The use of full-life costing has been used to inform decisions on procurement issues (such as boiler

replacement and electrical maintenance)

- A hands-on approach has been used with suppliers to impress on them the importance of sustainability and ensure they sign up to abiding by the principles in the Strategy. Where feasible, sustainability indicators are also being introduced as part of new contracts to ensure that environmental performance can be monitored through the life of a contract.

#### 2.18 Workplace travel plan

- A staff travel survey was undertaken in June and July 2010, with a 64% return rate, and has been used to assess current travel patterns and the potential for these to change. A staff travel group was formed to assist with the survey and help develop the Travel Plan itself. The process has been assisted throughout by input from the Oxfordshire County Council Travel Plans team.
- In May 2011, a revised Workplace Travel Plan will be launched to encourage staff to think about the necessity to travel, encourage use of walking and cycling, to encourage use of public transport and car sharing as an option.
- Given the nature of the rural district it is sometimes a necessity to drive but for some shorter journeys there are alternatives. The Council will support staff in a Cycle Purchase Scheme and has overhauled the pool bikes for use.

#### 2.19 Data and performance management

- Robust performance management arrangements have been established. A scorecard of performance measures has been introduced and returns are collected on a routine basis.
- The appointment of an Energy Officer during 2010 means that assessment of CO<sub>2</sub> emission performance can now be undertaken in-house rather than through external consultants, leading to more timely production, greater ownership and cost savings.

#### 2.20 Culture change and best practice

- A network of Green Champions has been established to promote and encourage energy efficiency amongst staff, and share good ideas and best practice. This sits alongside regular information items such as Green Tips for staff in Cascade and articles in Inside Cherwell to raise the profile of energy saving.
- Staff have taken part both in Climate Change Week and Green Office Week to promote positive messages throughout the organisation. As part of Green Office week an Energy Efficiency Guide for all members of staff has been launched.
- Environmental Services will pursue the Environmental Management Standard (ISO 14001) for Thorpe Lane depot as a pilot, once the depot re-development is complete, for its possible introduction on a council-wide basis in future. This has involved evaluating the effect that the Depot has on the environment, prioritising those impacts and seeking methods to reduce

them.

#### 2.21 Communications

- A comprehensive communications plan has been developed covering each of the areas mentioned above. To further promote energy efficiency internally as well as externally, articles are planned for Inside Cherwell, Cascade and in some cases press releases will be mailed out.

#### **Energy Policy**

- 2.22 In parallel to the Carbon Management Plan a new Energy Policy has been developed jointly between the Facilities Management and Climate Change teams. The proposed policy is set out in Appendix 2.
- 2.23 The policy is based on the energy hierarchy of reducing use, using energy efficiently, deployment of renewable where practical and a reduced reliance on fossil fuels if possible. The adoption of this policy further reinforces the Carbon Management Programme and its target of 22% reduction.
- 2.24 As outlined in the policy the Council will seek to improve its energy and reduce its energy consumption across all sites and operations. All staff will encourage good practise behaviour whilst at work. Please see Employee Energy Saving Guide, Appendix 3.
- 2.25 This will allow the Council to be an example in a low carbon future. The Council aims to use its role as a community leader to positively encourage emission reductions in the wider community.

#### **Carbon Reduction Commitment**

- 2.1 The Carbon Reduction Commitment (CRC) is a mandatory emissions trading scheme for organisations whose total electricity consumption is greater than 6000 MWh in the initial reporting period of calendar year 2008. At present Cherwell District Council's electricity consumption is below the threshold and is not required to take part in the trading scheme however it is required to report its electricity consumption.
- 2.2 In 2008, Cherwell District Council had three meters settled on the half hourly market at Bicester Ploughley Leisure Centre, Bodicote House and Banbury Museum Café. Our consumption in 2008 was approximately 1800MWh. Therefore we were required to undertake an 'Information Disclosure' to tell the Environment Agency our usage in 2008 but we do not need to take part in the CRC scheme.
- 2.3 The Department for Energy and Climate Change (DECC) intends to simplify the CRC scheme. Government is considering reducing the threshold from the 6000MWh but has not stated to what level. We await any announcement on any reduction in the threshold for qualification in CRC which may impact on Cherwell

#### **Community Leadership – Cherwell Climate Change Partnership**

- 2.4 In successive local satisfaction survey's locally, 80% of our residents believe that the Cherwell District Council has a strong role to play in cutting carbon



emissions community work

- 2.5 Three years ago the Cherwell Climate change partnership was established. Its core members are Banbury and Bicester Town Council, Kidlington Parish Council, Thames Valley Police, Banbury and Bicester Chambers of Commerce, ORCC and Oxford Cherwell Community College.
- 2.6 All members have developed and signed up to environmental pledges around the Cherwell Sustainable Community Strategy and give regular feedback on implementation. Pledges include actions relating to energy usage, recycling, transport, procurement and water conservation. Partners were encouraged to sign up to at least four pledges and many signed up to more.
- 2.7 To broaden the remit of the Cherwell Climate Change Partnership it has been merged with the Environment Forum – giving Parish Councils and other community groups the chance to contribute
- 2.8 The Cherwell Climate Change Partnership has published a climate change and energy efficiency leaflet, which is being distributed through our partners and through roadshows and events organised by the Environmental Services Department (Appendix 4).

### **Key Issues for Consideration/Reasons for Decision and Options**

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- 3.1 Key to reducing energy efficiency and reduction in emissions are the Carbon Management Plan and the Energy Policy. The good work and improved performance already achieved by the Use of Natural Resources Delivery Group needs to continue to achieve further CO<sub>2</sub> emission reductions.

The following options have been identified. The approach in the recommendations is believed to be the best way forward

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|---------------------|---|
| <b>Option One</b>   | To approve the proposed Carbon Management Plan and Energy policy, and agree the 22% target reduction in CO <sub>2</sub> emissions by 2014/15  |
| <b>Option Two</b>   | To reject the proposed Carbon Management Plan and Energy policy and rely on improvements in energy consumption and carbon emissions made to date. This is forecast to cost the council £1,000,000 more by 2015. |
| <b>Option Three</b> | To ask officers to modify the proposals to set a lower emissions target, recognising that this would conflict with public and national government expectations  |

### **Consultations**

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| <b>Use of Natural Resources Delivery Group</b> | Continued investment in energy efficiency projects and promote energy awareness will help to reduce emissions and energy costs. |
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## Implications

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- Financial:** Energy costs are rising and it is important to reduce energy usage to stop costs rising  
Comments checked by Denise Taylor, Service Accountant, 01295 221982
- Legal:** There are no direct legal implications with this report  
Comments checked by Nigel Bell, Team Leader – Planning and Litigation, 01295 221687
- Risk Management:** A Cleaner Greener Cherwell is one of the four strategic priorities of the Council and increasing energy efficiency and reducing CO2 emissions is a key component  
Comments checked by Claire Taylor, Community and Corporate Planning Manager, 01295 221563

## Wards Affected

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All

## Corporate Plan Themes

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A Cleaner, Greener Cherwell

## Executive Portfolio

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Councillor George Reynolds  
Portfolio Holder for Environment, Recreation and Health

## Document Information

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Appendix No	Title
Appendix 1	Summary of Cherwell Carbon Management Plan
Appendix 2	Energy Policy
Appendix 3	Employee Energy Saving Guide
Appendix 4	Cherwell Climate Change Leaflet
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