

REPORT TO THE EXECUTIVE		Report No. 14
Date of Meeting	24 th July 2008	
Title of Report	Update on the Carbon Trust Report	
Portfolio	Waste & Sustainability	
Link to Corporate Priorities	Action: Improve the energy efficiency of Council owned buildings – implement programme and recommendations from the Carbon Trust Report for Monkton Park Office	
Key Decision	No	
Executive Workplan Ref	B398	
Public Report	Yes	

Summary of Report

This report advises a number of projects and proposals which focus on reducing the dependency of this council and its successor authority on fossil fuels. It advises that works are underway which will produce continuing energy savings, reducing the energy footprint of the authority resulting in savings to offset increasing energy costs, enabling resources to be devoted to other uses.

Officer Recommendations

It is recommended that the Executive:

- 1) Review and approve the proposals for energy saving works at various Council owned properties as listed in Appendix 2 to the report,**
- 2) Endorse the actions of Officers in implementing the energy efficiency measures identified in the report,**
- 3) Authorise the Asset, Design and Regeneration Manager to procure the works listed in Appendix 2 (as approved) subject to budgetary provision.**

Other than those implications agreed with the relevant Officers and referred to below, there are no other implications associated with this report.

Financial Implications	Legal Implications	Community & Environmental Implications	Human Resources Implications	Equality & Diversity Implications
Yes	None	Yes	None	None

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1. Introduction

- 1.1 This report is an update of the proposals for energy saving works considered by the Officer Energy Saving Group, driven by the Carbon Trust Report, and Members are asked to note potential outcomes.

2. Options and Options Appraisal

- 2.1 Option 1: Procure the energy saving works recommended to both reduce costs and increase the Council's energy efficiency.
- 2.2 Option 2: Decline to carry out the works acknowledging the adverse contribution this makes to climate change and negative impact on Council revenue budgets

3. Background Information

- 3.1 A Carbon Trust report was prepared in November 2005 based on the Monkton Park office and several Leisure Centres. The report was presented at the Overview and Scrutiny Committee of 15 December 2005 by its author, Julian Edmunds of Upton Energy.
- 3.2 The report made general policy recommendations and identified specific works, mainly at the Leisure Centres, where beneficial energy savings could be made.
- 3.3 Member and Officer Climate Change Working Groups were established with broad terms of reference, tasked with producing a revised North Wilts Climate Change strategy, out-reach advice to the community and specific North Wilts capital projects.
- 3.4 With the onset of the Local Government Reorganisation proposal for unitary status for Wiltshire, it was felt that some aspects of Energy Policy would be better reviewed county-wide, enabling a new Officer Group with Member support to focus on energy saving projects at Council buildings and providing support for Community based projects. Two members of the Officer Group also attend meetings of the Wiltshire Energy Managers Group, established since the Unitary announcement and intended to handle the co-ordination and transition of activities between District and County Councils
- 3.5 The consultant who prepared the Carbon Trust report has been retained to advise and assist on various projects as well as undertake research and audits of Council property and make recommendations. He has been taking regular meter readings and has advised that consumption is slightly below target for Monkton Park (Appendix 1) but that there are opportunities to reduce consumption further.

4. Proposals & Projects

4.1 Monkton Park

- 4.1.1 The Carbon Trust report acknowledged that the Monkton Park office had been efficiently designed with good controls and energy saving features. There was no opportunity for major plant investment with a reasonable payback period. However there is no cause for complacency as there are housekeeping measures that can be investigated.

- 4.1.2 Monkton Park has been extensively monitored to establish the 'base load' – what electricity is used, and where, when the building is not occupied. Also local consumption meters have been used to test the power draw of individual appliances. This information can be used to target measures where most good can be achieved.
- 4.1.3 A very high out of hours usage has been identified, with a significant consumer being the IT server load, probably not a surprise given the emphasis currently being placed on 'e-government'. However, it has also been discovered that the telephones use up to 5% of total electricity, more than half out of office hours, the same can be said for printers and copiers. A small number of p.c.s are not switched off at close of business but a far higher number of monitors also remain on. The lights in the basement archive store are turned off out of hours however this infrequently used part of the office still accounts for up to 4% of the lighting load.
- 4.1.4 As part of a Europe wide standardisation of electricity supply voltage requirements, most electrical equipment sold in the EU can operate successfully at lower voltages than is available from the mains. Investment in voltage optimisation plant can bring savings across the building as a whole even before other energy savings are considered. In the case of Monkton Park savings of at least 10% are predicted by the installation of this type of equipment which is currently on order.
- 4.1.5 Hardware and software trials are being undertaken by the Council's IT section using "Power over the Ethernet" to power the telephones without a mains transformer and a computer programme that will turn off an inactive p.c. and its monitor when not in use.
- 4.1.6 Orders have been placed for nearly 60 time clocks to be fitted to printers and copiers to cut down their out of hours standby consumption. The archive store has now been put on motion sensor lighting so that it is no longer lit when not occupied.
- 4.1.7 The Consultant has predicted that the net effect of applying these 'housekeeping' changes to Monkton Park will produce a 20% saving in electricity usage.

4.2 **Parsonage Way Depot**

- 4.2.1 The Depot at Parsonage Way is the only other significant building owned and managed by the Council. There is no gas in the area so the depot is dependent on electricity for heating as well as normal small power use. Despite this the site does not consume enough to be put on a half-hour tariff which would aid monitoring.
- 4.2.2 Some proposals such as heating controls and equipment time clocks have relatively short payback periods. More significant plant changes would only show a payback in more than 10 years.
- 4.2.3 However where other enhancement works are proposed it is both practical and sensible to consider incorporating the recommended changes at the same time. To this end incorporated in the office refit project will be more efficient lighting and to replace the aging and unreliable night storage heaters will be cooling/heating units. Similarly the extending of the workshop provides the opportunity to provide more efficient heaters and controls the benefits of which will be magnified as the extended workshop doors will be able to close!
- 4.2.4 Whilst the payback periods will be extended, the improved performance, increased efficiency and better working conditions coupled with long term savings justify the investment.

4.2.5 Although not on a half-hourly metered tariff, 2 'smart meters' have been fitted as a consequence of a new electricity supply contract. These will allow more detailed metering to identify peak and base demand loads which may identify areas where further savings can be made.

4.2.6 For many years the Monkton Park office has been using certified 'green' energy, procured by Jarvis at the Council's request. The new supply contract for other electricity where the Council is named as the customer, is now also 'green' energy.

4.3 **DCL Managed Leisure Centres**

4.3.1 The Carbon Trust Report 'sampled' the Leisure Centres and identified generic and site specific projects that would have both "quick win" and long term savings paying back within 5 years.

4.3.2 Since that initial report more comprehensive audits have been undertaken at the Centres managed by DC Leisure on behalf of the Council. Works averaging £30,000 at each centre have been identified (Appendix 2), and the Council's consultant will produce schedules of work and specifications to put the various works in hand.

4.3.4 Reducing running costs at the centres will have a positive effect on any surcharge that might be levied by DCL.

4.4 **Community Managed Leisure Centres**

4.4.1 The centres at Calne and Cricklade are managed by their local communities. They were not included in the consultant's recent audit, however basic similarities were identified in the original Carbon Trust report. Accordingly a grant of up to £30,000 has been allocated for each centre to be applied for by each Community Management Organisation once they have identified by survey, a schedule of energy saving works.

4.5 **Other Initiatives**

4.5.1 With assistance of Jarvis, the recycling of cans and plastic containers, with collection points in every Beverage Room, has been recently introduced.

4.5.2 An exciting project currently at the feasibility stage involves the generation of electricity from the weir on the Avon downstream from the Monkton Park office. The outcome of a feasibility study is expected within a month. Early indications are that whilst there may not be sufficient generation to fully provide for the office consumption, the off-peak base load is likely to be exceeded such that out of hours electricity could be exported to the grid.

5. **Financial Implications**

5.1 There are several budgets available for energy saving projects that have evolved from the Carbon Trust Report:

Works to NWDC property	£225,000
DCL managed Leisure Centres	£120,000
Community managed Leisure Centres	£60,000
Professional Services	£30,000

5.2 The various works proposed normally pay back within 5 years, some much less. As the cost of energy increases so the payback period decreases.

6. Legal Implications

6.1 None arising directly from this report

7. Community & Environmental Implications

7.1 Energy saving by reduced consumption without any reduction in the quality or quantity of service delivery is good for the local and wider environment.

7.2 Adoption of a wide range of low-key measures puts the Council in a good position to demonstrate to business and the public that good housekeeping is as important as landmark projects.

8. Equality & Diversity Implications

8.1 None arising directly from this report

9. Risk Analysis

9.1 The Council's credibility as a benchmark for good energy management and as a signatory to the Nottingham Declaration will be adversely regarded.

8.2 Energy costs are predicted to rise for the foreseeable future. Energy saving measures adopted now will help to mitigate cost increases

Appendices:	<ul style="list-style-type: none">• Appendix 1 - Graphs of Electricity and Gas usage at Monkton Park• Appendix 2 - Schedule of Works and savings at Leisure Centres
Background Documents Used in the Preparation of this Report:	<ul style="list-style-type: none">• Energy Management & Opportunities Assessment for NWDC – Report of the Carbon Trust• Previous committee reports and correspondence files

Previous Decisions Connected with this Report

Report	Committee & Date	Minute Reference
Carbon Trust Report Carbon Trust Report – Large Scale Programme to reduce energy consumption	Overview & Scrutiny 15/12/05 Executive 9/3/06	O103 E191