



Buckinghamshire County Council

Report to Overview and Scrutiny Committee for Community and Environmental Services

Title:	Energy Saving Initiatives
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Background to our Present Situation

The Energy Management team within Property Services has been very proactive over many years advising users of County buildings on energy saving opportunities and implementing many energy saving schemes. This has saved hundreds of thousands of pounds over the years and has helped to preserve our environment.

For example, (1) By introducing electronic building management systems to control the large central heating boilers instead of ordinary time clocks saves in the region of £225k per year on fuel costs. (2) By purchasing “green electricity” (made from renewable sources) at the same price as brown electricity saves in the region of 683 tonnes of carbon dioxide entering the atmosphere every year.

The causes and effects of climate change are becoming better known across the UK, and the emphasis for energy conservation is moving away from primarily cost savings to that of measuring the reduction of carbon dioxide gas emissions. All Local authorities have come under pressure from the Government to do more, in the fields of Carbon Management (reducing Carbon dioxide gas emissions) and in using Renewable Energy Technology. We are rising to these challenges to help preserve our environment, save carbon and save money that can be used on improving service provision.

The Government will be monitoring our performance through the Corporate Performance Assessment, (CPA) and best value performance indicators. (We will show how we are getting value for money from our use of resources, and where possible obtaining external funding / grants for conservation projects).

The County's Corporate Plan and Council Aims 1,2,3,4, 6, and 7 links to the initiatives being taken.

1. Involve, represent and serve all who live and work in Buckinghamshire.
2. Provide efficient and effective services.
3. Give children and young people the best chance in life.
4. Improve the quality of life for adults.
6. Build stronger and healthier communities

7. Maintain a vibrant economy whilst protecting the environment.

Through the work done in Property Services we contribute to the Council aims by engaging and communicating with the people we serve and by being seen to actively make efforts to conserve / improve the environment. This provides a good example to follow. We look for innovative solutions that will give good value, good quality and make savings that can be used to improve the quality of other services.

In June 2004 the County was invited by The Carbon Trust (which is a Government-funded agency introduced to drive forward the change initiatives needed to meet the national carbon reduction targets) to join with 23 other Councils around the Country to take part in the second of three pilot schemes to develop a "tool kit" to enable public and private organisations to produce an "Action Plan" to reduce carbon dioxide emissions across the wide range of service activities under their control. Buckinghamshire County Council (BCC through Chris Williams) signed-up to this initiative and through a series of seminars and workshops funded and organised by the Carbon Trust we produced a vision statement and an action plan for reducing carbon emissions by 1% per year for the next five years. Bill Chapple champions this initiative.

The vision statement in our action plan is: **"Buckinghamshire County Council aims to be a leading local authority in carbon management, committed to minimising the impact of climate change"**

We have a Carbon dioxide (CO₂) emissions reduction target to meet for 2005/06 of 1012 tonnes. (Carbon dioxide is measured in tonnes and 1 tonne of CO₂ equates to approx 1 hot air balloon)

The action plan does not rely only on projects carried out by Property Services but is crosscutting, with the Planning and Transportation service area (P&T), through the home-to work travel policy and initiatives, and Street Lighting, Waste and Sustainable Procurement, considering what changes they can make in future years. The work undertaken by Property Services is included in the annual Local Agenda 21 report by Bill Chapple to full Council.

Funding – Invest to Save.

Nothing can be achieved without investing now to save in the future. This either involves investing time in raising the awareness of users of energy to potential energy saving opportunities by implementing good housekeeping measures or it involves investing capital in projects that will reduce energy consumption in the future.

To encourage and facilitate energy conservation and good energy management, the County Council has for many years allocated a rolling fund of £300,000 from its Efficiency Fund specifically for the implementation of "Energy Efficiency Projects". This allocation is known as the *Energy Efficiency Loan Fund Scheme (EELFS)*. Loans are repaid over five years interest free to enable other schemes to be undertaken. The scheme was set up in 1993 for schools to use, since when numerous projects have been undertaken saving many thousands of pounds on fuel bills. In 1997 the scheme was extended to be available to all service areas.

The Property Services Energy Team, EMEU (Energy Management and Environmental Unit) endeavour to promote such schemes to maximise the uptake of

this fund. It has always been difficult to persuade schools to part with their money even though it is they who get the savings.

Where appropriate, EMEU will also secure external funds on behalf of our clients. Such funds often have conditions attached and these have to be met. These funds are often government initiatives and sourced through the Carbon Trust (formerly the Energy Saving Trust), either through specialist suppliers of energy saving equipment, or through our partner organisation, TV Energy. Our latest initiative we are about to put forward is a PSA2 bid for £100k to fund a post to engage closely with building users to encourage the implementation of more schemes, which will further reduce carbon dioxide emissions.

With the advances in new technology for generating renewable energy, government grants have been made available to encourage the installation, which is very expensive. The energy team have taken advantage of this and put together projects combining grant allocations with school funds and funds from the authority. For the second year (2005-06) the Council has approved a capital allocation of £70k to help pump prime the installation of renewable energy equipment. This has the added benefits of putting the County at the for front of those investing in this technology, which raises public awareness to the issues of climate change, and shows the County is embracing the demands of government initiatives.

Examples of Innovative and other energy saving projects

Property Services are carrying out highly visible schemes to make the public and Service Areas across BCC aware of the need and benefits of reducing energy consumption and carbon dioxide emissions by using new technology and other forms of renewable energy.

Examples: -

A wind turbine was installed at Brill School in 2004 in partnership with the School, TV Energy and the County. Two more were installed this summer 2005, at Carrington School and Long Crendon School. As well as producing "green energy" these and other projects can also be used in school curriculum development to raise the awareness of children to climate change and alternative forms of energy. Other schools have shown an interest, but all locations are not suitable, sheltered areas and the need for planning permission are two restrictions.

Advising and raising the awareness of all Service Areas and our building designers, Jacob Babbie, is also a priority so that new initiatives can be incorporated into the design of new buildings at the earliest stage. For example, the new schools being planned for Berryfields in Aylesbury include a wood-chip boiler to provide heating and hot water. One such boiler is already in use at Shortenills Environmental Education Centre.

The installation of the photovoltaic panels on the mezzanine walkway of New County Offices is another example of the County promoting the use of renewable energy. This project attracted a £25,000 grant from central government, and a display in the New County Offices main reception shows the electricity we are now generating. This is estimated to be 8,000 Kw hours per year

Property Services have also recently installed a voltage reduction unit (powerPerfector) on the incoming electrical supply into New County Offices. This has lead to a 13% reduction in our electricity consumption in the building, estimated savings approx £9,500 per year. Another unit has just been installed in Old County

Offices saving £4,900 per year. Others will be installed in other large buildings if funds become available. These savings can be counted towards the Gershon efficiency savings.

Other types of energy saving projects that have been implemented are listed below: -

Installing movement detectors to switch off/dim lights or turn off water supplies.

Replacing old inefficient tungsten light fittings with compact fluorescents.

Installing movement detection equipment in areas of periodic use (toilets)

Installing controls on boilers, to optimise use and heat output.

Increasing the insulation when replacing roof coverings.

Using double-glazing on window replacement schemes.

Using condensing boilers when new ones are required.

Using natural ventilation instead of air conditioning where possible.

Making a Difference

BCC was awarded the South East of England Renewable Energy Award 2004 for the Most Proactive Local Authority. The award was sponsored by the Government Office for the South East, the South East England Regional Assembly, The Countryside Agency, the South East England Development Agency and our partner organisation, TV Energy.

The Energy Team within Property Services has been short listed for the 2005 ATP awards in the innovation category.

It is essential that Property Services continues to build on these initiatives and that the good work continues to achieve more savings more carbon reductions and national recognition to BCC. It is essential as “stewards” of the County we continue to operate within an environmentally friendly culture both for the continued sustainability of the County and it’s populace but also for the County to become an excellent performing Council within the CPA arena. (providing good value for money and use of resources)

Questions

Members may wish to comment on the work undertaken to date and suggest how: -

- 1. Further education or investment can save energy and**
- 2. Additional resources could be made available to extend further our ability to invest to save.**