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Energy Efficiency update report for the Resource Management Working Group – 24th April 2012.

1.0 Introduction

- 1.1 This report is in response to a request by the Resource Management Working Group for an update on the Council's policies and procedures for energy saving.

2.0 Statutory Legislation

- 2.1 Introduced in 2009/10, the Carbon Reduction Commitment: Energy Efficiency Scheme (CRC) is a mandatory scheme aimed at helping the Government in meeting its national carbon reduction targets by improving energy efficiency and cutting emissions in large public and private sector organisations.
- 2.2 The scheme features a range of reputational, behavioural and financial drivers, which aim to encourage organisations to develop energy management strategies that promote a better understanding of energy usage.
- 2.3 West Berkshire Council, including maintained schools and academies, is subject to the CRC scheme as it currently consumes more than the threshold set by the government (6,000 megawatts of electricity through half hourly meters).

3.0 Formal Policy

- 3.1 In 2009, Executive approved the adoption of the Council's Carbon Management Plan (CMP). This document was produced as part of the Carbon Trusts 'Local Authority Carbon Management Programme' and involved liaising with external Carbon Trust approved Consultants to analyse the Council's carbon footprint. At a very high level, potential energy efficiency/carbon saving projects were identified that if implemented would help to improve the Council's energy efficiency and reduce its carbon footprint.
- 3.2 Since 2009, our understanding of the Council's carbon footprint and the 'Green' technology market has advanced and as a consequence a number of assumptions made within the CMP are no longer valid. As a result, the aims, objectives and projects identified within the CMP are due to be reviewed and where necessary updated.
- 3.3 To support energy efficiency projects run under the CMP, a capital budget of £500,000 has been allocated as an 'Invest to Save' budget. The aim of this budget is to pump prime energy efficiency projects or enhance other projects by improving their energy efficiency outcomes. Payment is made as an internal loan and repayments come from realised energy savings within energy bills (Revenue).
- 3.4 In 2011 the Council formally adopted a 'Sustainable Procurement Impact Assessment' (SPIA). The SPIA has been designed to help identify the main sustainability risks associated with the letting and ongoing management of all WBC contracts valued in excess of £50,000. Areas to be considered when applying this methodology to contracts include impacts on energy, water, waste and emissions. If required, more

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detailed information on the SPIA can be obtained through the Council's Contracts and Procurement officer.

4.0 Energy Management Projects

4.1 The Council has both investigated and implemented a number of energy efficiency projects. These include:

- In 2010, the Council carried out a feasibility study for the potential of wind turbine technology on Council owned land. This study was undertaken in partnership with 'Partnership for Renewables', an arm of the Carbon Trust specifically set up to investigate the potential for commercial wind turbine technology on public authority owned land. The conclusion at the end of this study was that no council owned land was commercially suitable to site a wind turbine.
- Installation of a number of different renewable energy technologies across the Council's estate. To date these are:
 - Biomass – 3 buildings, with a further building being investigated
 - Solar PV – 4 buildings, with 2 further installations being investigated
 - Ground Source Heat Pumps – 2 buildings, with a further installation being investigated
 - Solar Heating – 2 buildings
 - Air Source Heat Pumps – 1 building
- The Energy Management team has been heavily involved in providing guidance on funding models for solar PV installations at a number of schools.
- Installation of Variable Speed Drives in 4 Leisure Centres. This project was fully funded from the Carbon Management budget, costing £16,000; payback is approximately 2 years and should save approximately 93 tonnes carbon per annum.
- Installation of specialist window film to stop solar gain and improve heating/cooling costs at the Council's Market Street Offices. Again this project was fully funded from the carbon management budget, costing £33,000; payback is approximately 5 years and should save approximately 40 tonnes carbon per annum.
- Installation of replacement windows at Compton Primary School. Part funded by the Carbon Management budget (£13,000), payback is 5 years.
- AMR phase 1: implementation of 5 AMR pilot studies in schools. AMR technology allows real time monitoring of a buildings energy consumption profile. Through real time monitoring the user is able to establish a normal energy consumption profile and quickly identify divergence from the norm. The pilot studies were fully funded from the Carbon Management budget (£16,000) and identified savings of approximately £21,000 in the first year. Monitoring is ongoing.
- AMR phase 2: the Council has recently entered into a contract to install AMR technology in a further 5 to 10 Council buildings.
- AMR phase 3: the Energy Management team are currently exploring the feasibility and cost of a wider programme of AMR installation across all Council buildings, including schools.
- The Energy Management team have initiated a feasibility study for improving the energy efficiency of lighting installations at both the Council's Market Street Offices and Kennet and Northcroft multi-storey car parks.

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- A request for £100,000 funding from the Carbon Management budget has been approved for the ICT Server refurbishment project. The business case states that this would provide a 5 year payback on the £100,000 investment and the project is now underway.
- The Energy Management team undertook a tender process for the implementation of Voltage Optimisation technology across 10 identified schools. At the end of the tender process, analysis of the bids identified issues with the level of investment required and payback periods. It was concluded at the time that value for money was not to be had from this project. Since this project was suspended, voltage optimisation (V.O) technology has improved and the Council is now looking at feasibility studies for implementation of V.O in the Kennet and Northcroft multi-storey car parks which initially suggest improved and viable payback periods.

5.0 Community Leadership

5.1 Through its involvement with the Local Strategic Partnership Greener sub-partnership the Council has supported a number of community and business focused activities and projects. These include:

- The 'Greening Campaign'. This is a community focused and community run energy/sustainability awareness campaign containing a number of stages that each engaged community will go through. In 2011, 3 communities (Cold Ash, Hermitage and Thatcham) reached stage 2 of the campaign. In completing stage 1, between them the 3 communities calculated that they saved a total of 297 tonnes of CO₂, 521,000 litres of water and £59,000. A further 2 communities (Wash Common and Burghfield) have recently launched Stage 1 of the campaign.
- The 'Green Exchange'. This was set up by the Energy Management team as a result of requests from local community action groups and individuals. The exchange meets on a quarterly basis and provides a forum for local community groups and individuals to meet and discuss sustainability best practice. Occasionally experts are invited to attend and deliver presentations/workshops.
- 'West Berkshire Green Business Network'. The network was set up to help local business landlords and small and medium enterprises, either through raising awareness of energy and waste management issues or supporting 'green enterprises'. Recent activities include a breakfast energy management workshop, in partnership with the Carbon Trust, and a Landlord / Tenant event.

6.0 Informal Actions

6.1 As well as the formal policy and projects identified above, the members of the Energy Management team are also involved in the following activities on an informal basis.

- Collating monthly energy meter readings from corporate buildings and schools
- Meeting on a regular basis with Property Projects team / Special Projects / Education Assets, advising on retrofit energy efficiency options
- ICT monitoring energy consumption of IT equipment
- Input into building/refurbishment projects (Council and School) at design stage, advising on energy efficiency options at start of project. In the case of schools this includes consultation as a part of the recognised SPAR notification process.

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- Meeting directly with Schools, advising on energy efficiency options, behaviour change programme, and energy management and monitoring.
- Reviewing new/existing 'green' and renewable energy technologies.

7.0 Energy Management Plan

- 7.1 As mentioned in 3.2 above, the Energy Management Team is planning to review and update the Carbon Management Plan in 2012/13, re-branding it as the Council's 'Energy Management Plan'. This is in support of the proposed 'Protecting the Environment' Council priority for 2012 to 2016.
- 7.2 The aim is to review, update, capture and formalise all of the above and other identified areas such as renewable energy, alongside strategies / policies that already exist such as the Council's Waste Strategy and The Procurement Strategy, creating a joined up sustainable approach.
- 7.3 New areas that will also need to be analysed and included in any Energy Management Plan include the transfer of public health responsibilities and related issues such as 'fuel poverty'.
- 7.4 Timescales for production of a formal Energy Management Plan are to be determined and firmed up once more is known with regards the recent announcement of a public consultation on the Carbon Reduction Commitment. This consultation has been introduced by the Government in response to feedback from participants that the scheme as it stands is not aligned to normal 'business' operations, is too onerous and the way in which it is being implemented is leading to additional administrative costs.
- 7.5 Whilst this work is being programmed, the Energy Management Team will continue to promote, support and implement energy efficiency technologies and projects within the Council's estate and the district.