Agenda item: 7

HAMPSHIRE COUNTY COUNCIL

Report

Committee/Panel:	Buildings, Land and Procurement Panel
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Title:	Energy and Carbon Management Activities Update
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Report From:	Director of Culture, Communities and Business Services

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1. Executive Summary

1.1 In October 2015, the Director reported that the first phase of the carbon management strategy had been successful in achieving a 22.8% carbon emissions reduction over the first five years of the strategy against a 20% target

1.2 Over the course of the first phase of the plan a number of work programmes have been delivered to achieve the reductions including the major street lighting PFI, a number of building energy performance improvements such as the advanced boiler control programmes, the Energy Performance Programmes (EPP) 1 & 2, the solar PV programme and a behavioural change programme.

1.3 In June 2016 the Panel supported the proposal from the Director of CCBS to focus Phase 2 of the carbon management strategy on carbon emissions reductions from the corporate estate, street lighting and officer travel.

1.4 In addition to the delivery of phase 2 of the carbon management strategy the Council continues to be part of the Carbon Reduction Commitment (CRC) Energy Efficiency Scheme and must therefore pay its carbon tax and continue to publish data on its Greenhouse Gas (GHG) Emissions on an annual basis. At the end of phase 1 of the carbon management plan (2014/15) the carbon tax bill for the County Council was £586,000. Without the success of the carbon management plan in achieving these reductions the carbon tax would have been £794,300; an avoided cost of £200,200.

1.5 Members will recall the CRC no longer includes schools in the emissions data, whilst the GHG Emissions cover all emissions associated with the Council’s activities including schools.

2. Carbon Management Strategy Phase 2

2.1 The carbon management strategy, phase 2, will therefore concentrate on reducing carbon emissions from street lighting, buildings in the corporate estate and business travel by officers and will plan to achieve the objective of a 40% reduction from 2010 levels by 2025.

The table below shows the carbon emissions in the first year of phase 2. For reference it includes the phase 1 data back to 2010. A very positive start has been made on the phase 2 emissions reduction programme. It should, however, be noted that the emissions are not weather corrected and they can vary as a result of abnormally cold weather in the heating season.

If the current trend continues the target will be achieved earlier than planned and greater reductions will be forthcoming by the 2025 end date.

Sector	2010 Emissions Tonnes	2015 Emissions Tonnes	2016 Emissions Tonnes	***2025 Target Emissions***
Corporate Buildings	21,000	19,060	16,829	-
Street Lighting	26,600	17,558	13,450	-
Officer Travel	6,600	4,889	4,534	-
Total	**54,200**	**41,507**	**34,813**	***32,500***
% Reduction	-	-23.4%	-35.8%	-40%

The target reduction for phase 2 of the strategy will be to reduce the emissions from the activities listed above from 41,500 tonnes in 2015 to 32,500 tonnes by 2025

To help achieve this, a number of programmes are being worked on including;

2.2 <u>Corporate Estate - Energy Performance Programme Phase 3</u>; This will comprise further works to improve the energy efficiency of the buildings by the installation of LED lights and improved draught proofing and thermal insulation. Funding for the works will be largely through the Salix Loan scheme, but where appropriate will be supported by the County Council’s landlord’s programme of improvements such as replacement ceilings, re-roofing and the like. The Salix scheme provides an interest free loan for the installation of energy reduction measures in buildings. The loan is paid back over 5 years from the savings made in energy costs.

2.3 Salix funding has been used successfully for a number of Energy Performance Programmes in the past including the advanced boiler controls and the re-lighting of Milestones museum.

2.4 County Farms – PV programme; a programme of PV installations is about to be procured which will facilitate the installation of 12 solar arrays across the farm estate generating around 120,000 kWh of electricity which will provide the tenant farmer with a supply of cheaper electricity (typically 25% lower than the main grid price). This will benefit the rural energy we support and provide a revenue income for the Council from the feed in tariff received. Together with the corporate PV programme completed earlier this year, total income from the FiTs will be around £40,000 per annum.

2.5 Corporate estate rationalisation programme; the corporate estate is continuing to change as a result of the transformation projects implemented as a consequence of revenue grant reductions by government. For example the Children's and Family service recently made a decision to reduce the building footprint it occupies. It has been assumed that this type of reduction will continue in the medium term and will support achievement of the 2025 target.

2.6 Rationalising and reducing the size of the corporate estate will play a part in the lowering of carbon emissions as well as an overall reduction in the revenue expenditure from running and managing the estate. As the programme develops, the anticipated carbon emissions reductions will be calculated and factored in to the projected figures.

2.7 Electric vehicle charging points; the County Council owns and manages 14 electric vehicle charging points around the county. Currently the operation of the charging points are cost neutral to the County Council, but officers are exploring the expansion of these facilities and the viability of producing a revenue income in the future. Extending the coverage of the charging points could open up further opportunities for the Council to operate electric vehicles for the courier service and its transport fleet which would reduce carbon emissions from this sector.

2.8 Solar PV; following the substantial reduction in the feed-in-tariff in January 2016, the business case for solar PV has been adversely affected with payback periods extended to over 12 years from around 8 - 9 years for larger arrays prior to the cut in tariffs. Consequently the market has taken some time to adjust and officers are reviewing the business case in the context of the reduced tariff and the market development. Members are reminded that, in terms of return on investment, solar PV is a lower priority now the FiT has been reduced and the cost per tonne of carbon saved was always less efficient than an Energy Performance Programme (EPP) for example.

2.9 Behavioural change programme; the "Do Your Energy Bit" programme continues to be effective and with the recent launch of a new and improved on-line energy management tool which gives building managers greater visibility of the energy use data for their building, it is anticipated this will increase awareness for staff and building managers. It is difficult to quantify exactly how much carbon emissions are reduced as a result of behavioural programmes, but there is clear evidence that, where building occupancy and use are stable, greater awareness and user participation do have an effect on energy use

3. Support to schools

3.1 Schools, as a group, continue to be the biggest carbon emitters accounting for around 60% of the emissions for the Council as a whole. Inflationary pressure and restrictions in government grants mean that their revenue budgets are coming under growing pressure. Schools are also facing a challenge in terms of extended use both in terms of there own activities (breakfast and homework clubs which extend the school day for example) but also for wider community use. A programme of extensions and new schools to be delivered over the coming years in response to rising pupil numbers will exacerbate this trend. Although energy consumption in schools has fallen over the course of the last 5 years, last year saw an increase of 3% in electrical energy use, an indication of more intensive building use.

3.2 The Director of CCBS will continue to support schools in their efforts to reduce their energy consumption and carbon emissions and, to this end, is developing a number of bespoke programmes for schools;

3.3 Schools Energy Performance Programme: In July, Schools Forum endorsed a proposal to develop a programme specifically for schools based on a successful trial undertaken in the south of the county. This EPP programme will again be funded through the Salix Loan scheme and schools will be able to add to the capital loan should they wish to do so to pay for other improvement works not included in the Salix bid e.g. ceiling replacement. The Salix loan will also cover the professional fees for the design, delivery and programme management, all of which will be additional income to Property Services.

3.4 The type of work undertaken will be similar to that of the EPP projects in the corporate estate, but the less onerous payback parameters applied by Salix for schools is likely to increase the number of measures which would be appropriate and viable.

The formal launch of the programme is planned for early in the autumn term, but initial interest in the scheme has been very positive. A number of schools in the New Forest have approached the department seeking inclusion in the first tranche of the EPP. The Energy Team is working with this group of schools and with Salix to establish the most appropriate way to facilitate a programme of works with schools.

3.5 On-line data analysis tool; in June the new on-line data analysis tool was formally launched to replace the existing tool. The new system was very well received by delegates at the Schools Administration Officers Conference in June 2016 and all of the training events have been oversubscribed. More events are being planned for the start of the new term.

3.6 Solar PV on new schools and major extensions; new schools and major school extensions will continue to incorporate solar PV arrays as part of the construction as this is more cost effective than fitting systems to existing buildings. Almost 40 schools will have a solar PV array when the programme is complete generating around 400,000kWh of electricity every year

4 Recommendation

4.1 It is recommended that the positive progress to date with Energy and Carbon Management activities in the built estate is noted and endorsed by the Panel.

CORPORATE OR LEGAL INFORMATION:

Links to the Corporate Strategy

Hampshire safer and more secure for all:	Yes
Corporate Business plan link number (if appropriate):	
Maximising well-being:	Yes
Corporate Business plan link number (if appropriate):	
Enhancing our quality of place:	Yes
Corporate Business plan link number (if appropriate):	

Section 100 D - Local Government Act 1972 - background documents

The following documents discuss facts or matters on which this report, or an important part of it, is based and have been relied upon to a material extent in the preparation of this report. (NB: the list excludes published works and any documents which disclose exempt or confidential information as defined in the Act.)

Document	Location
None	

IMPACT ASSESSMENTS:

1. Equality Duty

1.1. The County Council has a duty under Section 149 of the Equality Act 2010 ('the Act') to have due regard in the exercise of its functions to the need to:

- Eliminate discrimination, harassment and victimisation and any other conduct prohibited under the Act;
- Advance equality of opportunity between persons who share a relevant protected characteristic (age, disability, gender reassignment, pregnancy and maternity, race, religion or belief, gender and sexual orientation) and those who do not share it;
- Foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

Due regard in this context involves having due regard in particular to:

a) The need to remove or minimise disadvantages suffered by persons sharing a relevant characteristic connected to that characteristic;

b) Take steps to meet the needs of persons sharing a relevant protected characteristic different from the needs of persons who do not share it;

c) Encourage persons sharing a relevant protected characteristic to participate in public life or in any other activity which participation by such persons is disproportionally low.

1.2. **Equalities Impact Assessment:**

An equalities impact assessment has /has not been considered in the development of this report as access requirements are always considered during the design stages of building maintenance projects and are often improved.

2. Impact on Crime and Disorder:

2.1. The County Council has a legal obligation under Section 17 of the Crime and Disorder Act 1998 to consider the impact of all decisions it makes on the prevention of crime. The proposals in this report have no impact on the prevention of crime.

3. Climate Change:

3.1. The Energy Strategy and Carbon Management Plan will have significant positive effect on the carbon emissions of the County Council. Climate change impacts are a driver in implementing reduction programmes.