

HAMPSHIRE COUNTY COUNCIL

Report

Committee/Panel:	Buildings, Land and Procurement Panel
Date:	3 October 2017
Title:	Energy and Carbon Management Activities Update
Report From:	Director of Culture, Communities and Business Services

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1. Executive Summary

- 1.1 In October 2015, the Director of Culture, Communities and Business Services (CCBS) 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 against a 20% target.
- 1.2 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.
- 1.3 In October 2016 the Director of CCBS reported that an excellent start had been made to Phase 2 of the Strategy. A 35.8% reduction had been achieved against the 40% target to 2025 – a saving of over 6,000 tonnes of carbon.
- 1.4 In the 2016-17 energy reporting year further steady progress has been made and is set out in this report. A further reduction to 38.1% (of 2010 levels) against the 40% has now been delivered. It is now certain that the Phase 2 target will be achieved which is good news.
- 1.5 Since 2010 the energy cost savings have been in the order of around £30m (including schools in Phase 1). In addition Carbon Tax Charges have been reduced by £330,000 since the start of the programme.
- 1.6 The Director of CCBS now proposes to review the impact of recently approved Energy Performance Programmes and will report to a future meeting with a proposed revised target for 2025.
- 1.7 The Executive Member for Policy and Resources (EMPR) approved more investment in energy programmes in July 2017 allocating £2.72m of capital from available funds. This report now updates Members on progress against those new initiatives.

2. National reporting on Carbon Consumption

- 2.1 The Council will continue to be part of the Carbon Reduction Commitment (CRC) Energy Efficiency Scheme until the scheme ends in March 2019 and must therefore pay its carbon tax and continue to publish data on its Greenhouse Gas (GHG) Emissions on an annual basis.
- 2.2 The success of Phase 1 of the carbon management strategy saved in excess of £200k in CRC charges and to date phase 2 of the strategy has realised a further £130k as the price of carbon credits has risen over the life of the scheme.
- 2.3 Each organisation in the CRC scheme must purchase sufficient carbon credits to meet its carbon emissions. This can be done by forecasting emissions and purchasing credits in advance or credits can be purchased in arrears to match actual emissions – so called ‘buy to comply’.
- 2.4 There has always been a cost differential in the purchase in advance price and the buy to comply price. In phase 1 of the CRC scheme this was a small difference, however in the current CRC phase the margin is increasing year on year. In order to take advantage of this the Council has purchased in advance the majority of credits calculated to be required for 17/18 and 18/19. This will realise a saving over a buy to comply strategy of £53k over the two year period in addition to the savings accrued due to the reduction in emissions.

3. Carbon Management Strategy Phase 2

- 3.1 The carbon management strategy, phase 2, will concentrate on reducing carbon emissions from street lighting, buildings in the corporate estate and business travel by officers and will achieve the objective of a 40% reduction from 2010 levels by 2025. The table below shows a very positive start was made on the phase 2 emissions reduction programme in year 1. A further reduction of 2.3% has been achieved to 2017.
- 3.2 If the current trend continues the target will be achieved earlier than planned and greater reductions will be forthcoming by the 2025 end date for Phase 2. The Director of CCBS will review the impact of current and future programmes and come back to the Panel with further recommendations.

Table of Carbon Emissions from 2010

Sector	2010 Emissions Tonnes	2015 Emissions Tonnes	2016 Emissions Tonnes	2017 Emissions Tonnes	2025 Target Emissions
Corporate Buildings	21,000	19,060	16,829	16,830	-
Street Lighting	26,600	17,558	13,450	12,119	-
Officer Travel	6,600	4,889	4,534	4605	-
Total	54,200	41,507	34,813	33,544	32,500
% Reduction	-	-23.4%	-35.8%	-38.1%	-40%

3.3 Although there was no overall change to the emissions from corporate buildings further analysis of the data shows;

- Electricity emissions fell by 3.5% year on year. This reduction will be a combination of a number of factors including those achieved by the earlier energy performance programmes and better staff engagement through the Do Your Energy Bit programme raising awareness of energy use in the workplace and how to reduce it.
- Gas emissions however rose by 10% over the same period. The vast majority of our gas use is to provide heating for buildings and clearly this is weather dependant. The data shows 2016/17 was approximately 10% colder than 2015/16. This is an area to focus upon in 17/18 to ensure gas use is reduced.

3.4 Street lighting continues to show a reduction in emissions year on year. A number of initiatives have been rolled out since the major replacement programme concluded in 2015 including the dimming of some street lighting for specific periods overnight. Further work is being progressed by the Director of ETE to investigate additional dimming and switching regimes to further reduce energy use. The use of LED lamps to replace the conventional compact fluorescent type is also under review.

3.5 Officer travel shows a slight increase over last year's figure, but overall the trend is still a downward one since 2010; again this will be an area for focus in the staff engagement programme. It is anticipated that officer travel emissions will also reduce in the future as a result of the electric vehicles programme referred to later in this report.

3.6 In June 2017 the Panel supported the proposal from the Director CCBS to undertake two further phases of the Energy Performance Programme (EPP4 and EPP5). This was approved by EMPR in July 2017. Additional resources of £2.72m were approved as a total investment for the future planned phases.

Energy Performance Programme Phase 4;

- 3.7 This phase will entail the replacement of conventional lighting with low energy LED lighting and controls across the corporate estate. When complete it is anticipated that approximately 75% of the light fittings will have been replaced for an investment of £1.62m. This is expected to deliver a revenue saving of £240,000 per year in both energy and maintenance costs.
- 3.8 Where applicable Salix loans (a zero interest mechanism for borrowing) will be utilised to maximise the Council's investment in this programme of works. The Director CCBS has commenced the programming of these works which will be delivered in 2017/18 and 2018/19.
- 3.9 The second initiative in EPP 4 is the development of an Electric Vehicle (EV) charging point procurement framework for the public sector. On 3 July an open event was held in Winchester to publicise this initiative and to test the market response to the proposal. The event proved to be very successful with a number of attendees from both the public and private sector generating some positive and informative debate.
- 3.10 The Director of CCBS is continuing to develop the scope and details of the framework which will be procured toward the end of 2017. Further updates will be reported to this Panel in due course.
- 3.11 It is planned to make a step-change in provision of charging points across Hampshire and facilitate other public sector organisations procuring outlets in their areas. A charging network is an essential part of facilitating future expansion of the EV fleet for Hampshire County Council (referred to in Phase 5 below). The framework is expected to secure a revenue income of £24,000 per year and be fully self funding.

Energy Performance Programme - phase 5

- 3.12 EPP5 focuses on the deployment of electric vehicles for the HCC managed fleet and exploring the potential of battery storage technology for the built estate.
- 3.13 The Panel supported the proposal to the roll out of electric vehicles to replace conventional diesel and petrol models. The Director of CCBS has identified a number of potential 'early wins' and these are being progressed to provide EVs for client departments or business units. County Supplies are currently running an EV as their pool car and later this year the courier service will take delivery of an electric van. Hampshire Scientific Service are also trialling EVs in their business over the coming months. The EP programme is expected to save around £210,000 per year in the reduction of fuel costs (around 96%) by conversion from diesel to electric.
- 3.14 Sites suitable for battery storage trials are being investigated with a view to the development of a business case for 2 initiatives – battery storage for buildings with PV (Photo Voltaic) attached and bulk storage of grid electricity.

4. Recommendation

It is recommended that:

- i) The positive achievements of the Carbon Management Strategy Phase 2 are noted. This has produced a further reduction of 38.1% against a target of 40% by 2025. This equates to around £30m gross energy cost savings since 2010 for both schools and the County Council.
- ii) The further £130,000 of carbon tax reductions in Phase 2 is noted.
- iii) That the good progress in Energy Performance Programmes Phases 4 and 5 is noted.

CORPORATE OR LEGAL INFORMATION:**Links to the Strategic Plan**

Hampshire maintains strong and sustainable economic growth and prosperity:	yes
People in Hampshire live safe, healthy and independent lives:	yes
People in Hampshire enjoy a rich and diverse environment:	yes
People in Hampshire enjoy being part of strong, inclusive communities:	yes

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 disproportionately low.

1.2. Equalities Impact Assessment:

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