

HAMPSHIRE COUNTY COUNCIL

Report

Committee/Panel:	Buildings, Land and Procurement Panel		
Date:	8 October 2019		
Title:	Energy and Carbon Management Activities Update		
Report From:	Director of Culture, Communities and Business Services		
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Purpose of this Report

1. This report updates the panel on further good progress on the reduction of the County Council's carbon emissions and details the ongoing programmes of work to achieve this. It also makes a recommendation for further investment in energy saving programmes from the existing capital budget.

Recommendation

It is recommended that:

2. The positive achievements of the Carbon Management Strategy Phase 2 reduction of 3.1% year on year, with an overall reduction of 43.3% against the 2025 target of 50% are noted.
3. The further £230,000 of carbon tax reductions in Phase 2 is noted.
4. A further saving of £300,000 in energy costs over the past year is noted
5. The good progress in Energy Performance Programmes Phases 4 and 5 is noted.
6. The positive engagement with schools is noted
7. The Panel recommends to the Executive Member for Policy and Resources that projects totalling £610,000 are added to the capital programme funded from the remaining £1.11 million of the previously identified £7m capital funding identified for green energy and energy saving initiatives. The projects will support the further expansion and development of the electric vehicle infrastructure, further Solar PV and battery storage in support of the carbon reduction and energy saving targets for HCC's corporate estate.
8. The Panel recommends to the Executive Member for Policy and Resources that approval is sought from Cabinet to use the remaining £0.5 million of this investment to create a £1million De-Carbonisation

Clean Growth energy recycling fund with 50:50 match funding basis through Salix Finance.

9. The Panel endorses the commitment made to sign up to the Department of Business, Energy and Industrial Strategy's (BEIS) Emissions Reduction Pledge 2020.

Executive Summary

10. The County Council at its meeting in July 2019 formally declared a Climate Change Emergency. This will now provide the overall context for the current phase of the Carbon Management Strategy; The Council was appraised of the excellent progress made to date and the contribution programmes have already made to a reduction in emissions. Any future recommendations for investment and the delivery of future programmes of work will dovetail with the proposed action plan for Climate Change which will be considered by Council at a future date.
11. 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.
12. 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.
13. In October 2017 the Director of CCBS reported that excellent progress was being made on Phase 2 of the Strategy. A 38.1% reduction had already been achieved against the 40% target to 2025 approved by Cabinet in 2010.
14. Recognising the progress made, in January 2018 the Director of CCBS recommended to the Panel that the target be revised upward to 50% by 2025. The new target of 50% was duly adopted and approved by the Executive Member.
15. The Executive Member for Policy and Resources (EMPR) approved further investment in energy programmes in July 2017 allocating £2.72m from available funds. This annual report now updates Members on progress against those initiatives.
16. Members are reminded that since 2010 the cumulative 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 £385,000 since the start of the programme.
17. A further saving in of £300,000 in cost has been made this year as a result of the reduction in energy consumption

National reporting on Carbon Consumption

- 18.** 2018/19 is the final year of the Carbon Reduction Commitment (CRC) scheme which will be replaced by an enhanced Climate Change Levy (CCL). CCL is already a component of our utility bills and is designed to incentivise organisations to reduce their energy consumption.
- 19.** CCL will be charged on all energy used by all consumers, unlike CRC which applied only to large consumers of energy in the public and private sectors like the County Council.
- 20.** By reducing our emissions and by forward purchasing lower cost carbon credits, in the first four years of phase 2 of the strategy we have realised a total of £230,000 of savings as the price of carbon credits has risen over the life of the scheme.
- 21.** The Director of CCBS has recently signed up to the Department of Business, Energy and Industrial Strategy's (BEIS) Emissions Reduction Pledge 2020. This initiative is linked to the Clean Growth Strategy in which the government introduced a voluntary target for carbon reduction across the wider public and higher education sectors in England. This target would aim to reduce greenhouse gas emissions across these sectors by 30% by 2020/21, compared to a 2009/10 baseline.
- 22.** Whilst the 30% has been set across the sectors as a common target, the government recognises some organisations like the County Council have already exceeded this and will accommodate this within their reporting structure.
- 23.** As the County Council already reports its emissions through the CRC and greenhouse gas emissions schemes, there will be no additional burden placed on officers to collate the information required as part of the BEIS Pledge.

Carbon Management Strategy Phase 2

- 24.** The carbon management strategy, phase 2, concentrates on reducing carbon emissions from street lighting, buildings in the corporate estate and business travel by officers and is currently on track to achieve the objective of a 50% reduction from 2010 levels by 2025.
- 25.** The table below shows very positive progress in phase 2 emissions reduction since the programme commenced in 2015.

Table of Carbon Emissions from 2010

Sector	2010 Emissions Tonnes	2015 Emissions Tonnes	2016 Emissions Tonnes	2017 Emissions Tonnes	2018 Emissions Tonnes	2019 Emissions Tonnes	2025 Target Emissions
Corporate Buildings	21,000	19,060	16,829	16,830	16,425	14,924	-
Street Lighting	26,600	17,558	13,450	12,119	11,560	11,233	-
Officer Travel	6,600	4,889	4,534	4,605	4,420	4556	-
Total	54,200	41,507	34,813	33,544	32,405	30,717	27,100
% Reduction	-	-23.4%	-35.8%	-38.1%	-40.2%	-43.3%	-50%

26. Comparing current emissions to those reported last year shows there has been a reduction from corporate buildings of 9%, further analysis of the data shows that;

- Electricity emissions have reduced by 6.9% over the year, the reduction achieved through a combination of the energy performance programmes (in particular LED lighting replacement) and greater staff awareness and engagement.
- Gas emissions fell by 14% over the same period noting that the winter of 18/19 was relatively mild compared to the average.

27. Street lighting emissions have continued to decrease over the course of the last 12 months as a number of initiatives mature, including the dimming and the switching off of some street lighting for specific periods overnight. The Director of Environment, Transport and Economy recently undertook feasibility study into the replacement of lamps with LED. The cost and lengthy payback estimated in the business case means that this is not currently economic to pursue. When the payback (around 5 years) and costs reduce to an acceptable level a programme of lamp replacement will become viable. This will be kept under review as the cost of installation is expected to reduce in the future.

28. There has been a slight increase in officer miles travelled this year, and whilst the overall emissions have reduced over the phase 2 period they have stayed static over the last couple of years. The greater deployment of electric vehicles through the fleet and the planned conversion of the pool cars to electric vehicles (EV) is expected to see emissions reduce further in subsequent years. The ongoing implementation of modern meeting room technology is also expected to reduce travel demands as officers can 'meet' and connect remotely. This will take time to come to fruition as the digital technology roll out is still ongoing and staff become familiar with its use. This will drive behaviour change which is expected to contribute positively to emission reduction.

- 29.** In June 2017 the Panel supported the proposal from the Director of CCBS to undertake two further phases of the Energy Performance Programme (EPP4 and EPP5). This was approved by the Executive Member Policy and Resources (EMPR) in July 2017. Additional resources of £2.72m were approved as a total investment for the future planned phases. This included funding a major programme of LED lighting replacement, commencement of an electric vehicle replacement programme and investment in new battery technology.

Energy Performance Programme Phase 4

- 30.** The first year of the LED lighting programme is now complete. 27 projects were completed for a range of buildings across the Council. These projects amounted to energy savings of £150,000 and 470 tonnes of carbon a year. The overall average payback of the projects completed in this first phase is within 7 years.
- 31.** Scoping of projects for this year has been undertaken and the remainder of the budget will be spent within the current the financial year.
- 32.** The early projects have shown a good return on investment and feedback from building users has been positive. For example, the lighting replaced at Dame Mary Fagan House will save in the region of £18k per annum with a payback of 5.95 years and improved the working environment.
- 33.** The second initiative in EPP 4 was the development of an Electric Vehicle (EV) charging point procurement framework for the public sector.
- 34.** The Central South Regional Framework for Electric Vehicle Charging Points has been in existence for just over one year. This is a route to market for public sector organisations which ensures procurement is simple and efficient. It is, in effect, a pre-negotiated bulk buy arrangement. To date 35 organisations including Winchester City Council, Southampton City Council, Oxford City Council, Test Valley Borough Council and Hampshire Police have framework access with a potential for around £900,000 of investment in the Hampshire area through this framework. The County Council takes a small levy on the transaction with the supplier to cover costs of administration. The arrangement is self funding and supports Property Services commercial approach to income and charges.
- 35.** The Director of CCBS is also delivering a programme of Electric Vehicle (EV) charging point installations to support the roll out of the County Council's EV fleet. Charging points have been provided at Highways depots, and at the Scientific Services offices and other HCC sites. Further points are planned to include a number in specific strategic locations across the HCC estate to support the use of EVs by the Council's staff and services.
- 36.** By the end of this year, 10 Electric Vehicle Charging points will have been installed at 5 Country Parks and Calshot Activities Centre.

- 37.** A second phase is being delivered this financial year for further public facing assets to ensure they are accessible to EV drivers.
- 38.** On-street charge points are being explored by Property Services' Energy Team in conjunction with ETE in response to interest from residents and pressure from other Councils. A guidance document has been produced by ETE for Hampshire residents for "on street" parking outlining the interim action that can be taken and the associated responsibilities. The Council is also promoting the provision of EV Charging points on its own land for development.

Energy Performance Programme - Phase 5

- 39.** EPP5 continues to focus on the deployment of electric vehicles for the HCC managed fleet and exploring the potential of battery storage technology for the built estate.
- 40.** By the end of the financial year a total of 106 EV Charge Points (EVCP) will have been installed across the estate.
- 41.** 15 charging points have been installed in the EII basement car park and have formed part of a free trial pilot to test the system and encourage staff and members to use EVs and plug in hybrids.
- 42.** By September, 36 electric vehicles will be in use as fleet cars. 19 are on contract hire for the following services:
- CCBS – 14
 - ETE – 1
 - Adult Services – 3
 - Corporate Health and Safety – 1

A further 17 vehicles are currently on order for ETE Highways.

- 43.** Battery Storage – feasibility studies for Dame Mary Fagan House and EII Court are nearly complete. The recommendations will be developed into a business case where they could be combined with further sustainable technology to improve viability and return on investment such as including more solar PV and combined heat and power units (CHP).

Commitment of Remaining Funding in the Policy and Resources Energy Budget

- 44.** £1.11 million of funding remains from an original sum of £7 million identified for energy saving initiatives. Drawing on the experience gained from phases 4 and 5 of the energy programme to date and the successful outcomes achieved thus far, it is now proposed that this remaining funding is allocated to a range of initiatives as set out below:

Solar PV, building fabric and heating improvements to the corporate estate	£500,000
further expansion of the Electric Vehicle infrastructure	£410,000

battery storage for buildings with Photo Voltaic (PV) installations, bulk storage of grid electricity	£200,000
Total	£1,100,000

- 45.** In addition, there is an opportunity to enhance the value of the County Council's investment with a Salix loan contribution.
- 46.** Salix funding has been used successfully to augment our energy programmes to fund (or part fund) investments in energy saving technologies. Salix are the delivery body for the Department of Business, Energy & Industrial Strategy (BEIS), providing interest free loans for public sector energy projects. The Director of CCBS is in regular contact with Salix and the County Council is regarded as a leader in public innovation and investment in energy saving initiatives.
- 47.** Council officers continue to have regular dialogue with Salix who are about to launch a revised De-Carbonisation Clean Growth Recycling Fund where authorities match fund the Salix loan contribution which is used to deliver energy saving works. The revenue cost of energy and carbon saved is returned to the Councils fund and is re-used to invest in further energy saving opportunities.
- 48.** It is proposed to establish a Salix Decarbonisation Fund of £1m with the £500,000 allocation in the table above and match funding of £0.5m from Salix. This fund will be used to respond to changes in the corporate estate that provide new opportunities for investment in technologies such as Solar PV, building fabric and heating improvements. Although the PV programme was undertaken, further opportunities for PV installations arise due to roof condition improvements and certainty of the retention of specific buildings for the longer term. The costs of PV purchase in the market also has come down over time and schemes can become viable which in the past would not have been. This is kept under review on a regular basis. This fund allows for a longer payback period (up to 10 years) to enable the energy team to focus on projects that would previously not have qualified for loan funding.
- 49.** Need project appraisal detail to support the £410k EV infrastructure
Schools
- 50.** Property Services' Energy team continues to support schools with energy and carbon reduction programmes such as LED lighting and energy performance improvements through the Schools Energy Performance Programme.
- 51.** Over the last year the Schools programme has successfully delivered 23 school projects with energy cost savings of around £100,000 and 360 tonnes of carbon per annum. A further 23 schools have been surveyed or programmed for viability activity.

52. In addition to these programmes, schools continue to request opportunities to install Solar PV systems. The energy team are developing a proposal and business case for Schools Solar PV and energy performance to enable the County Council to offer a Solar PV programme for schools in Hampshire. A business case is being developed and the Director of CCBS is in consultation with the Head of Finance. This will also be considered as part of the wider Climate Change action plan and further reported to the Panel. The Council will also install PV on new schools and extensions where it is technically feasible to do so.

Energy Supply Contracts

53. The development of future energy supply contracts for the County Council and its partners is progressing well, focussing on efficiencies from the remaining 2 years of existing contracts, and benefits of future supply contracts for the Council. Smart meters were fitted across the whole estate at the start of the Carbon Reduction Programme and give immediate access to consumption information centrally and locally for schools. Efficiencies and improvements in the administration and billing processes including the following;

- Bill processing optimisation with the IBC saving the equivalent of 7 FTE days per month.
- The Electricity metering contract will now be aligned with new energy supply contracts in October 2019.
- Aged credit recovery held by Utilities companies has resulted in over £100,000 being returned to HCC.
- The energy “fixed prices” has been changed meaning that HCC will no longer be charged “risk premiums” for non-energy costs (taxes, levies). Saving of over £50k each year should be realised.
- External customers, schools and internal customers were engaged in June 2019 to sign up to the new energy supply Framework which is showing a good level of take up.

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.)

DocumentLocation

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.