



To: Executive Councillor for Finance and Resources
Report by: David Kidston, Strategy and Partnerships Manager
Relevant scrutiny committee: Strategy and Resources Scrutiny Committee
20/10/2014
Wards affected: All Wards

ANNUAL CLIMATE CHANGE STRATEGY, CARBON MANAGEMENT PLAN AND CLIMATE CHANGE FUND STATUS REPORT
Not a Key Decision

1. Executive summary

- 1.1 This report provides an update on progress during 2013/14 on actions to deliver the three strategic objectives of the City Council's current Climate Change Strategy, which covers a five year period from 2012-2016. As part of this, the report includes an update on progress in implementing the Council's Carbon Management Plan 2011-2016. The Plan sits under the Strategy and plays a key role in achieving its first strategic objective, which is to reduce carbon emissions from the City Council's estate and operations.
- 1.2 The report also provides an update on the current position of the Climate Change Fund, which provides support to projects that help to reduce the Council's own carbon emissions and/or manage climate change risks to Council staff and property.

2. Recommendations

The Executive Councillor is recommended to:

- a) Note the progress achieved during 2013/14 in implementing the Climate Change Strategy and the Carbon Management Plan.
- b) Note the Climate Change Fund Status Report.

3. Background

- 3.1 At Environment Scrutiny Committee on 9 October 2012, the then-Executive Councillor for Planning and Climate Change approved a revised Climate Change Strategy and Action Plan. The Strategy sets the framework for the City Council's action to address the causes and consequences of climate change between 2012/13 and 2015/16. It has three strategic objectives, which are:
1. To reduce carbon emissions from the Council's estate and operations and manage the risks to its staff and property;
 2. To set high standards and assist residents, businesses and organisations to reduce their carbon emissions and manage climate risks;
 3. To work in partnership with other organisations to address the causes and effects of climate change.
- 3.2 As part of the performance management arrangements for the Climate Change Strategy, it was agreed that officers would provide an annual update on progress in delivering the Climate Change Strategy Action Plan to the Executive Councillor for Finances and Resources at Strategy and Resources Scrutiny Committee. This report provides details of progress on some of the key actions during the second year of the Strategy. The majority of actions in the strategy have been progressed to the timescales set out in the strategy, but there have been some delays to some actions. A full list of progress towards all the 44 actions in the Action Plan is available on request.

4.0 Progress in delivering the key actions under Objective 1

- 4.1 Objective 1 will be delivered primarily through the Council's Carbon Management Plan for 2011-2016, which was approved at Environment Scrutiny Committee by the Executive Councillor for Planning and Climate Change on 26 June 2012. The Carbon Management Plan sets out 65 carbon reduction projects targeted at the areas of the Council's activity which contribute most to our carbon emissions (e.g. swimming pools, car parks, vehicle fleet, offices and sheltered and temporary housing). This report provides details of the Carbon Management Plan projects delivered in 2011/12 and 2012/13 as well as 2013/14.

4.2 Wherever possible we have sought in this report to quantify the impact of individual projects included in the Carbon Management Plan on the Council's finances and its carbon emissions. It is anticipated that these projects will reduce the Council's energy and fuel usage, which will lead to reductions in the Council's carbon emissions. By reducing energy and fuel usage at key sites, the projects will also lead to reductions in what the Council would otherwise have spent on energy and fuel costs at these sites. However, it should be noted that the actual amount that the Council spends on energy and fuel at these sites may also be influenced by other factors, such as any changes in usage of buildings, changes to service levels, unseasonal variations in weather or increases in energy costs beyond those already budgeted for. For this reason, this report provides figures on 'project cost avoidance' rather than financial savings. However, where tangible savings have been made, these have been recouped and are reported in this report.

4.3 A total of 28 projects have been delivered to date: nine in 2011/12; 12 in 2012/13; and seven in 2013/14. Full details of projects implemented are provided in Appendix A. The key Carbon Management Plan projects delivered to-date include:

- Installation of a range of energy efficiency improvements at Cherry Hinton Village Centre, Parkside Pools, Abbey Pool, Jesus Green Lido and Kings Hedges Learner Pool. The measures installed have included: LED lighting, pool covers, Building Energy Management Systems¹ and Variable Speed Drives².
- Installation of a solar thermal system at Abbey Pool, which use an array of photovoltaic (PV) panels installed on the roof of the pools to capture solar energy and provide a renewable source of hot water for the pool.
- Replacement of existing lighting in the Grand Arcade Annex car park and the Corn Exchange house lighting with more energy efficient LED lighting.

¹ Building Energy Management Systems (BEMS) control and monitor a building's mechanical and electrical equipment, such as ventilation, lighting, power systems, fire systems, and security systems.

² Variable Speed Drives (VSD) regulate the speed and rotational force of electric motors at the pools in response to changing levels of demand for energy from water and air pumps at the pools.

- Installation of a solar PV system and a range of energy efficiency measures, including internal wall insulation, heating upgrades and LED lighting, as part of the wider refurbishment of the Brandon Court sheltered housing scheme. A further solar PV system has also been installed at New Street hostel.
- Installation of a heat recovery system at the crematorium.
- Installation of more efficient boilers at Llandaff Chambers and Mill Road Depot and associated improvements to start controls and pipework.
- The installation of voltage optimisation³ technology at Grafton East Car Park and Mandela House.

4.4 The total cost of projects implemented during 2011/12, 2012/13 and 2013/14 was £1,340,360, which is lower than the amount we expected to spend during this period (£1,776,740) when the Carbon Management Plan was published in June 2012. The main reasons for this difference are:

- As projects have been refined and moved forward into implementation, and suppliers' quotes have been obtained, their costs have varied from our original estimates, in some cases considerably. For example, we originally expected the LED lighting upgrade in the Grand Arcade Annex car park (which was fully funded by the Climate Change Fund) to cost in the region of £120,500; in practice, the project cost £94,100. This partly reflects the rate at which LED products are developing and becoming more cost effective.
- Some of the projects proposed for implementation in 2012/13 and 2013/14 were not completed. Some of these projects have been rephased and will be completed in later years of the Plan, but others will not be taken forward as further investigation into their feasibility revealed that there was not a viable business case. For example, the proposed installation of voltage optimisation technology at Mill Road Depot did not proceed because further site surveys showed that the technology was not appropriate for the site and did not present a strong business case. Furthermore, the flood lights at Abbey Pool were due to be replaced with LED equivalents,

³ Voltage optimisation is a term given to the systematic controlled reduction in the voltages received by an energy consumer to reduce energy use, power demand and reactive power demand.

but because the lights were very specialist, the LED equivalents were not cost effective.

- 4.5 While we cannot be 100% certain, due to the difficulties we have had with our energy monitoring as outlined in paragraphs 4.9 - 4.12 below, it is estimated that the projects delivered during the last three years have reduced the Council's energy expenditure by around £143,000 per year; and achieved on-going carbon savings of around 800 tonnes of carbon dioxide equivalent (tCO₂e) per year.
- 4.6 Where tangible savings are made, it was agreed that we would only recoup savings from projects where the implementation cost was more than £15k AND where annual savings were more than £1k per annum. In other words we would only look to recoup £123,161 from the total estimated savings of £143,297. To-date we have already recouped tangible savings of £110,100 per annum and an additional £13,000 will potentially be recouped as part of the budget in October 2014 if tangible savings have been made. See Appendix A for details of individual projects.

Future projects – the next two years and post 2016

- 4.7 Over the next two years of the plan 2014-2016, we currently plan to deliver a further 37 projects. These projects will require a total investment of £999,956. £347,100 of this is expected to be funded by the Climate Change Fund; £267,100 from Repairs and Renewal; £96,947 from Housing Revenue Account (HRA); £148,809 from the managing agents of the leisure centres (GLL); and £140,000 from other internal budgets. These projects are estimated to reduce the Council's energy and fuel costs by approximately £140,455 per year at current prices, as well as reduce our carbon emissions by a further 770 tCO₂e per year. See Appendix B for a full list of projects proposed for implementation during 2014/15 and 2015/16.
- 4.8 Whereas, in recent years we have generally been picking the "low hanging fruit" – the smaller scale, easier to implement retrofit projects; to reduce our energy bills and carbon emissions further, we need to improve the fabric and insulation of our buildings. This is why we are currently working with the University-led Cambridge Retrofit partnership to carry out detailed energy surveys of our operational estate, to establish what else we can do within our

buildings to make them even more energy efficient. These surveys may uncover projects that are more cost effective than some projects already in the Plan. Where this is the case, we will seek to carry out the most cost effective projects first i.e. the projects that will reduce energy use and CO₂ emissions the most. It is hoped that the surveys conducted by Cambridge Retrofit, as well as surveys conducted by Council officers, will generate new project ideas which will help us create a new Carbon Management Plan which will be the blueprint for reducing our emissions further between 2016 and 2021. We are working to join up and align energy-efficiency work on our operational and commercial property portfolios as well as our administrative buildings.

Improvements to energy monitoring and baseline measurement

- 4.9 As previously reported to Environment Scrutiny Committee, the Council discovered in 2012 that it could not be completely confident in the accuracy of its total annual energy usage figures. This was because we were previously reliant on the data provided by our energy suppliers. Previously, our energy suppliers would take meter readings, but the frequency with which they did this varied greatly from site to site and rarely provided data for a complete financial year. As a result, for many sites we were reliant, at least in part, upon *estimated* energy usage data.
- 4.10 During 2012/13, we took steps to ensure that in future we have accurate data for all City Council sites included in the baseline for the Carbon Management Plan. The Council has invested in the installation of Automatic Meter Readers (AMRs) at all major sites that did not previously have them. AMRs will remove the need for estimated billing by automatically and remotely reading meters. This will provide more reliable data on our energy usage at all sites, but it will also enable us to identify any patterns or trends in energy usage and help highlight opportunities for future carbon reduction measures.
- 4.11 While AMRs considerably improve the accuracy of our energy usage data, they are not failsafe. As an additional measure, officers also take annual and biannual visual meter readings at all sites. We have assigned responsibility for reading each meter to a specific officer and provided them with training to ensure that they are able to read the meters correctly.

4.12 The 2013/14 financial year is the first year that we have had AMRs in place for both electricity and gas at all our major sites, as well as being the first year that we have taken visual meter readings too. So although, to-date it has been impossible to demonstrate how much the CMP projects already delivered have reduced our emissions by, from 2014 onwards we should find it easier to do this, because our 2013/2014 emission figures will be accurate. That said, due to the fact that we have been able to recoup tangible financial saving of £108,000, it could be deduced that our emissions will also have been reduced by an estimated 600 tCO₂e per annum but we can not evidence this with complete confidence through our historic energy use data.

Climate Change Fund status

4.13 The City Council's Climate Change Fund was established in 2008 to help deliver schemes or activities that would contribute to the achievement of its corporate climate change objectives, through both carbon reduction and climate change risk management. Since 2009, an annual status report on the Climate Change Fund has been presented to either Environment Scrutiny Committee or Strategy and Resources Scrutiny Committee depending on the Executive Councillor and Portfolio at that time.

4.14 To date, a total of £813,820 has been invested in the Climate Change Fund. The Fund criteria were revised in June 2012 to focus more explicitly on invest-to-save projects that would mitigate the Council's rising fuel bills, which ran to approximately £1,400,000 in 2013/14.

4.15 A full break down of all expenditure from the Fund is provided in Appendix C. This shows that, to date, a total of 28 projects have been supported by the Fund, representing a total investment of £466,720. Since 2011/12, the Fund has primarily been used to support the delivery of projects in the Carbon Management Plan. 11 of the 13 projects funded since 2011/12 were included in the Plan. These projects account for a total of £332,641 expenditure from the Fund. Two additional projects (the Tree Canopy study and the LED audit of multi-story car parks) have been supported since 2011/12 at a total cost of £21,500 because they met the wider criteria of the fund.

- 4.16 The current remaining balance of the Fund is £347,100. No additional provision was made in the Council's 2013/14 budget because this existing balance is sufficient to meet the projected future expenditure associated with the Carbon Management Plan. The projects currently identified for delivery during 2014/15 and 2015/16 will utilise the remaining money in the Fund and are estimated to deliver annual savings of £140,455 as mentioned in paragraph 4.7 above. See Appendix B for a full list of projects planned for implementation during 2014/15 and 2015/16 including those proposed to be supported by the Climate Change Fund.
- 4.17 Council may wish to consider making further provision for projects in the next Carbon Management Plan as part of future budget rounds, subject to the outcome of the current review of earmarked funds and reserves.

5.0 Progress in delivering the key actions under Objective 2

- 5.1 Objective 2 of the Climate Change Strategy is being achieved by putting climate change at the heart of services such as Planning (not least through the development of the Council's new Local Plan), Refuse and Environment, and Estates and Facilities.
- 5.2 Significant progress has been made during 2013/14 in developing the Cambridge Local Plan, which will set out the planning framework to guide the future development of Cambridge to 2031. Following public consultation on the draft Local Plan from 19 July to 30 September 2013, the Local Plan 2014 Proposed Submission document and supporting documentation were submitted to the Secretary of State on 28 March 2014. Following examination, adoption is hoped to take place in Spring 2015.
- 5.3 The draft Local Plan includes a range of policies to minimise the impact of future development in the City on climate change, including:
- Action 15 a): A policy requiring a minimum of Code for Sustainable Homes Level 4 for all new residential development has been included in the draft Local Plan.

- Action 15 a): Requiring a minimum of BREEAM⁴ 'very good' certification for non-residential development from 2014, rising to BREEAM 'excellent' from 2016. The development of bespoke sustainable construction methodologies is also promoted through policy.
- Action 15 b): Requiring all new developments to integrate the principles of sustainable design and construction into their design. Promoters of major developments will be required to prepare a sustainability statement as part of their Design and Access Statement setting out their approach to the following issues: adaptation to climate change, carbon reduction, water management, site waste management, use of materials.
- Action 15d): Requiring Code for Sustainable Homes Level 5/6 for water consumption in new homes (equivalent to 80 litres/head/day compared to an average current potable water consumption in Cambridge of 150 litres/head/day). To meet this standard, developments will need to use water recycling or rainwater harvesting.
- Action 24: Requiring climate change adaptation measures to be integrated into the design of new developments. The precise measures to be implemented will vary from development to development, taking account of the context of each specific proposal, but some example measures have been included in the Local Plan, with further detail due to be included in the updated Sustainable Design and Construction SPD. Multi-functional open spaces, e.g. spaces that help manage flood risk as well as providing more traditional open space uses, are also promoted through the draft Local Plan.

5.4 However, it should be noted that the Council may have to review some of these policies at a future date following the Government's Housing Standards Review. As a result of the review, it is possible that from 2016 we will no longer be able to use policy or planning conditions to require new homes to be built to the Code for Sustainable Homes. However, it is hoped that policy requiring new developments to demonstrate how they have met the principles of sustainable design and construction can be retained. Officers will continue to work with developers to deliver sustainable construction and to promote other construction methodologies,

⁴ BREEAM is an internationally recognised assessment method for sustainable building design, construction and operation

including the new homes standard currently being developed by the Building Research Establishment (BRE).

- 5.5 The Government's Housing Standards Review also suggests limiting the extent to which local planning authorities in areas of water stress can set water consumption standards to 105 litres/head/day. The City Council maintains that 80 litres/head/day, is necessary to maintain sustainable water resources in the long term. The Council's final policy approach is likely to be determined at the examination of the Local Plan.
- 5.6 The City Council has also assisted residents to reduce their carbon emissions through a range of measures in 2013/14 to improve the energy efficiency of existing homes in the City, including:
- Action 9 b): Spending over £1.5 million on improving the energy efficiency of Council homes, through: replacing 720 older boilers with more energy efficient condensing boilers; installing more than 150 loft and cavity wall insulation measures; and installing energy efficiency measures as part of wider housing maintenance work. This work has ensured that the all the City Council's housing stock continues to meet the thermal element of the Decent Homes Standard, with many properties significantly exceeding it. The Council aims to improve the overall SAP energy rating by at least one point per year. We are currently achieving an average score of 70, which is a 'C' rating (using SAP 2009 methodology).
 - Action 11 b): Providing support to homeowners to improve the insulation of their properties. Following the end of the national CERT scheme, funding for the City Council's Cambridge Home Insulation Scheme was extended to October 2013. Since the introduction of the scheme, a total of 729 loft and cavity wall insulation jobs were supported. These measures have been installed in a total of 567 properties across the City and this will generate an estimated annual saving of 446 tonnes of CO₂.
 - Action 11 d): Working with the five other Cambridgeshire local authorities to jointly procure Climate Energy Ltd to provide Green Deal, Energy Company Obligation (ECO) and self-financed energy efficiency measures across Cambridgeshire. The joint scheme, branded as Action on Energy, was launched on 13th November 2013. It aims to maximise energy efficiency in buildings, whilst engaging communities, generating local

employment and securing revenue streams to sustain local action.

- Action 11 d): In April 2014 the Action on Energy partnership was successfully awarded £7,857,400 from the Government's Green Deal Communities Fund. Part of this funding will be used to support householders to insulate solid wall properties and will be delivered through a street-by-street engagement approach. Another part of the funding will focus on encouraging the installation of improvements in the private rented sector.

5.7 The Council has also assisted residents to reduce their carbon emissions through its recycling and waste collection services during 2013/14. For example:

- Action 12 b): The City Council has promoted use of a new commingled recycling service to businesses. This has resulted in an increase in recycling of commercial waste collected by the Council from 21% in 2011/12 to 26% in 2013/14. Many schools have been provided with commingled recycling also.
- Action 12 b): Volunteers from the Recycling Champions scheme have carried out door-knocking exercises in blocks of flats to raise awareness of recycling. They have also attended local events to provide information and communicate with residents about any barriers they may have to recycling.
- Action 13): Since August 2012, the domestic blue bin recycling scheme has included plastic pots, tubs and trays. During 2013/14 commingled recycling has been provided for many more flats. The overall domestic recycling rate for the City has increased from 43% in 2012/13 to 44% in 2013/14.

6.0 Progress in delivering the key actions under Objective 3

6.1 Objective 3 of the Climate Change Strategy is being achieved by continuing to play a leading role in partnerships with neighbouring local authorities, the city's universities, and the voluntary, community and business sectors.

6.2 The City Council continues to work closely with partners, particularly the County Council in their role as Highways Authority, to help reduce transport-related emissions by promoting a shift to

more sustainable forms of transport, including walking, cycling and public transport.

6.3 The draft Local Plan includes a strategic objective that aims to ensure that all new development in Cambridge is “located to help minimise the distance people need to travel, and be designed to make it easy for everyone to move around the city and access jobs and services by sustainable modes of transport”. This objective is supported by a number of policies to minimise traffic generation and promote sustainable transport, including:

- Ensuring that major developments on the edge of the city and in the urban extensions are accessible to the city centre and major centres of employment by public transport, cycling and walking;
- Safeguarding land for new public transport infrastructure, such as bus lanes, interchange facilities and junction improvements;
- Safeguarding existing cycling and walking routes, identifying new cycle routes on land outside the public highway, for example the Chisholm Trail, and requiring developers to fund high-quality cycle paths;
- Setting minimum standards for numbers of cycle parking spaces to be provided in all new developments;
- Ensuring that new roads make provision for the needs of pedestrians, cyclists and public transport users, including safety measures.

6.4 The City Council has also helped to shape the Transport Strategy for Cambridge and South Cambridgeshire, which was adopted by Cambridgeshire County Council on 4 March 2014. The strategy provides a detailed policy framework and programme of schemes to address current problems for the area. It supports the Cambridge and South Cambridgeshire local plans, taking account of future levels of growth and detailing the transport infrastructure and services necessary to deliver this growth. The aim of the strategy is for more journeys in Cambridge and South Cambridgeshire to be made by bus, train, bike and on foot so that traffic levels are not increased. The Council has this year signed a City Deal agreement with local partners and the Government to, among other things, secure additional funding to deliver key elements of the transport strategy.

6.5 A number of other partnership projects were progressed in 2013/14 that will help promote a shift to more sustainable modes of transport in Cambridge, including:

- Action 37: Progressing a joint programme of improvements to existing highways for cyclists with Cambridgeshire County Council. The Downham's Lane adoption and improvement scheme was completed in 2013/14. The Perne Road/Radegund Road roundabout scheme will reduce vehicle speeds and increase cycle safety and is due to be completed at the end of September 2014. The widening of the avenue path on Jesus Green will be completed by the end of October 2014.
- Working closely with the County Council to install new cycle racks in the city centre which will provide an additional 600 cycle parking spaces by the end of October 2014.
- Action 39: Completing work with the County Council to deliver on-street spaces for car clubs in Cambridge. A policy on provision of on-street spaces for car clubs as part of major new developments has also been included in the draft Local Plan.
- Contributing funding to the Cambridgeshire Travel for Work Partnership, which works with employers to develop workplace travel and implement measures to reduce drive alone commuting and business travel.

6.6 In addition to the Action on Energy partnership outlined at 5.6, in 2013/14 the City Council worked with a range of partners to progress a number of major long-term schemes which will help reduce the impact of climate change. These include:

- Actions 32 and 33: Working with partners to ensure that development on City Council-owned land at Clay Farm meets sustainable construction standards. The Council's development partner and the City Council have submitted a joint planning application for housing development on the site. As part of this application, all housing will be delivered to above Level 5 of the Code for Sustainable Homes, will be of a high quality design and will include 50% affordable housing. The City Council and partners are also currently at the construction tender stage for the new joint community centre at Clay Farm, which will be constructed to at least BREEAM excellent standards.

- Action 29: Working with the University of Cambridge, Anglia Ruskin University and the private sector to explore opportunities for a commercially viable district heating scheme. Arup provided a report to the Sponsors Board for the project in December 2013 which reviewed the financial viability of the proposed scheme. As the rate of return for the scheme was lower than previously identified, a decision was taken not to pursue the scheme. However, the Board asked Arup to review the scope for further collaboration between the Council and the University of Cambridge on strategic carbon initiatives. This review has highlighted the potential for building-by-building heat connections and work is ongoing to explore potential connections between the New Museums site and the Guildhall and Corn Exchange.
- Actions 40 and 41: Continuing to work with partners in the Cambridgeshire Flood Risk management partnership to manage climate change-related flood risks. Key actions have included:
 - Contributing to the development of Cambridgeshire County Council's Local Flood Risk Management Strategy.
 - Including a policy on flood risk management and the role of Sustainable Drainage Systems (SuDS) in the draft Cambridge Local Plan.
 - Working with Cambridgeshire County Council on the development of a county wide Flood and Water Supplementary Planning Document to provide guidance to developers.
 - Establishing Sustainable Drainage Systems (SuDS) in open spaces that are adopted by the City Council and ensuring through the planning process that non-adopted open spaces in the majority of the southern fringe developments are permeable.

6.7 The City Council has also worked closely with local voluntary and community groups during 2013/14 and helped build their capacity to undertake activities to address climate change. It has provided a total of just over £47,000 in grants to 17 local environmental groups as part of the annual Sustainable City Grants programme. A total of 21 projects were supported which ranged from setting up community gardens, to support for the development of a Cambridge Sustainable Food Network. The Council also awarded

£18,190 in cycling and walking promotion grants to local groups for a range of projects, including software development for monitoring cycle usage, bikes and cycle training for young carers, and cargo bikes for a homeless support charity.

7.0. Implications

(a) Financial Implications

Funding for projects included in the Carbon Management Plan (which is the primary vehicle for delivering Objective 1 of the Strategy) will come from a number of different funding sources, including the Climate Change Fund and existing General Fund or Housing Revenue Account (HRA) budgets for delivering services.

The actions contained in the Climate Change Strategy Action Plan under Objectives 2 and 3 will be funded through:

- Existing budgets for delivering key services, particularly for projects or actions that will deliver climate change benefits as part of wider planned developments or improvements to key services. These fall within the General Fund or the HRA depending on the services involved.
- Government and other external funding sources for climate change initiatives.

(b) Staffing Implications (if not covered in Consultations Section)

Lead officers have been identified for projects in the Climate Change Strategy Action Plan and Carbon Management Plan who have the capacity to deliver the projects within the stated timescales. The Climate Change Officer will manage and co-ordinate the overall delivery of the Carbon Management Plan, with support from the Carbon Management Team, which is a corporate group that includes many of the lead officers.

(c) Equality and Poverty Implications

An Equalities Impact Assessment (EqIA) of the aims and objectives was carried out when the Climate Change Strategy and the Carbon Management Plan were developed. This did not identify any specific negative impacts, but the needs of different protected characteristics will need to be considered when implementing the range of actions

contained in the two documents. This is to ensure that the strategy is implemented effectively and that all people are able to benefit from the work being undertaken. Consequently further Equality Impact Assessments may be undertaken for individual projects. For example, an EQIA was carried out for the developing Local Plan.

(d) Environmental Implications

The Climate Change Strategy and Action Plan and the Carbon Management Plan will have a high positive impact on the environment by setting out a planned approach to: reducing the Council's carbon emissions; setting high standards for residents, businesses and organisations to reduce their carbon emissions and manage climate risks; and working in partnership with, influencing and learning from other organisations to address the causes and effects of climate change.

(e) Procurement

The Climate Change Strategy Action Plan includes two actions relating to procurement. The first focuses on improving the Council's contract management processes to ensure that contractors deliver the sustainability requirements of contracts. The second relates to exploring with partner organisations the potential for procuring a joint energy contract with associated sustainability criteria.

(f) Consultation and communication

Public consultation was carried out on a draft of version of the Climate Change Strategy and Action Plan for 10 weeks, starting on 5 July 2012 and finishing on 5 September 2012. The views expressed by respondents to the consultation were taken into consideration in developing the final strategy and were presented to the Executive Councillor and members of the Environment Scrutiny Committee before the Strategy was approved.

(g) Community Safety

The Strategy and Action Plan have minimal impact on Community Safety.

6. Background papers

These background papers were used in the preparation of this report:

- Cambridge City Council Climate Change Strategy and Action Plan
- Cambridge City Council Carbon Management Plan

Both documents can be viewed on the Council's website at:

<https://www.cambridge.gov.uk/climate-change>

Appendices

Appendix A – Details of Carbon Management Plan projects implemented during 2011/12, 2012/13 and 2013/14

Appendix B – Details of the Carbon Management Plan projects proposed for implementation during 2014/15 and 2015/16

Appendix C – Climate Change Fund expenditure to-date

Appendix A – Details of Carbon Management Plan projects implemented during 2011/12, 2012/13 and 2013/14

Projects costing less <£15k or annual savings <£1k. Therefore savings not recouped.								
HRA funded projects. Therefore savings not recouped.								
Ref.	Project	Lead officer	Total implementation cost - £	Annual carbon savings - tCO2e	Estimated Annual project cost avoidance - £	Project cost avoidance that will be recouped - £	Explanation	Total savings already recouped
2011/12								
1	Community Centre Energy Efficiency Improvements	Jackie Hanson	£9,800	7	£1,100		No - project cost less than £15K	
2	Pools Energy Efficiency Improvements - Parkside Pools changing areas	Ian Ross	£40,000	40	£10,300	£10,300	Yes - already recouped	10,300
3	Grand Arcade Annex Car Park LED Lights	Sean Cleary	£94,100	121	£15,366	£15,400	Yes - already recouped	15,400
4	Brandon Court Energy Efficiency Measures	Will Barfield	£440,000	42	£6,540		HRA	
5	Brandon Court - PV cells	Will Barfield	£130,000	12	£5,840		HRA	
7	Crematorium Heat Recovery Project	Paul Necus	£23,145	22	£2,629	£2,600	Yes - already recouped	2,600
8	Install electric bin lift on replacement refuse vehicle	Dave Cox	£5,000	3	£1,322		No - project cost less than £15K	
9	Replace boiler at Llandaff Chambers	Jim Stocker	£28,966	53	£8,578	£8,500	Yes - already recouped	8,500
62	Solar PV installation at New Street Hostel	Sam Griggs	£23,600	2	£1,506		HRA	
2012/13								
10	Implement RHI technologies - Non-housing properties	Ian Ross	£143,833	16	£10,800	£10,800	Partly recouped	6,000
12	Abbey Energy Efficiency Improvements (VSD and BeMS)	Ian Ross	£46,000	137	£20,200	£20,200	Yes - already recouped	20,200
13	Cherry Hinton Village Centre Changing Room Refurbishment	Ian Ross	£20,000	24	£3,550	£3,550	Yes - already recouped	3,550
14	Jesus Green and Kings Hedges Energy Efficiency Improvements	Ian Ross	£23,300	26	£3,950	£3,950	Yes - already recouped	3,950
15	Pool covers for Abbey and Parkside and Kings Hedges Leamer Pool	Ian Ross	£42,600	70	£11,400	£11,400	Yes - already recouped	11,400
16	Parkside Energy Efficiency Improvements (VSD and BeMS)	Ian Ross	£42,640	136	£20,000	£20,000	Yes - already recouped	20,000
22	Corn Exchange - Upgrade to LED House lighting	Chris Norton	£39,652	31	£4,500	£4,500	Yes - already recouped	4,500
24	Mill Road Depot - upgrade to condensing boilers	Jim Stocker	£33,394	10	£1,560	£1,600	Yes - already recouped	1,600
25	Mill Road Depot - Heating optimum start controls	Jim Stocker						
26	Mill Road Depot - pipework inspection & insulation	Jim Stocker						
27	Route optimisation for refuse trucks (HGVs)	Michael Parsons	£15,000				Project did not deliver expected savings	
28	Install stop/start technology on 12 replacement light commercial vehicles	Dave Cox	£2,100	1	£1,329	£1,329	Yes - but not yet recouped	
2013/14								
6	Upgrade lighting and install lighting sensors at Stanton House.	Sam Griggs	£7,000	3.3	£600		HRA	
11	Voltage Optimisation Roll Out - Grafton East Car Park	Clare Palferman & Sean Cleary	£12,612	13.8	£2,100	£2,100	Yes - already recouped	£2,100
17	Voltage Optimisation Roll out - Mandela House	Andy Wood and Clare Palferman	£20,037	20.8	£3,800	£3,800	Yes - but not yet recouped	
30	Upgrade to LEDs & lighting controls in Grafton West Car Park.	Sean Cleary	£30,000	17.0	£3,132	£3,132	Yes - but not yet recouped	
66	Hobson House Boiler Replacement	Andy Muggeridge	£42,000	4.1	£660		No - because annual savings less than £1K	
21	East Road Garages Lighting Upgrade.	Sam Griggs	£13,581	11.7	£1,935		HRA	
67	Replacing 2 Boilers at The Meadows Centre with more efficient types	Jonathon Church	£12,000	4.0	£600		No - because annual savings less than £1K	
TOTAL			£1,340,360	827.7	£143,297	£123,161		110,100
Ref.	Project	Lead officer	Total implementation cost - £	Annual carbon savings - tCO2e	Estimated Annual project cost avoidance - £	Project cost avoidance that will be recouped - £	Explanation	Total savings already recouped

Appendix B – Details of the Carbon Management Plan projects proposed for implementation during 2014/15 and 2015/16

Project	Estimated Total Implementation Cost	Estimated Annual Cost Avoidance (£)	CC Fund Contribution	R&R Contribution	HRA	Managing Agent of Leisure Centres (GLL)	Other internal	Estimated annual carbon savings - tonnes of CO2 (tCO2)
2014/15								
Corn Exchange - Heating Controls in foyer	£15,000	£2,000	£15,000					1.9
Rewiring of lighting circuits in Grand Arcade Car Park so LED lights can be installed.	£10,000	£0	£10,000					
Corn Exchange - Awareness Raising Campaign	£1,000	£1,170	£1,000					7.7
Community Centres - Awareness Raising Campaign	£1,000	£2,000	£1,000					12.9
Offices - Staff Awareness Campaign	£1,000	£10,200	£1,000					67.6
Introduce driver incentive scheme, to encourage more efficient driving	£1,000	£25,420	£1,000					57.1
Mandela House - upgrade to condensing boiler	£60,000	£2,464	£9,000	£51,000				15.2
Mandela House - free cooling - controls for existing fans	£600	£190	£600					1.3
Hobson and Mandela House - pipework and valve insulation	£8,628	£2,000	£8,628					12.0
Lighting upgrades - The Guildhall Third Floor	£2,400	£728	£2,400					5.0
Voltage Optimisation Roll Out - Queen Anne Terrace	£10,356	£3,099	£10,356					21.1
Mandela House - Draught proofing on first floor	£4,000	£262	£4,000					1.6
Install lighting sensors at Whitefriars	£8,000	£600			£8,000			3.3
Voltage Optimisation Abbey Pool.	£27,669	£6,770				£27,669		46.1
Voltage Optimisation Kings Hedges Learner Pool.	£13,947	£2,646				£13,947		18
Voltage Optimisation Jesus Green Outdoor Pool.	£8,496	£1,366				£8,496		9.3
Replacement of CHP plant at Parkside Pools.	£160,000	£16,000				£80,000	£80,000	109.0
Pools - Awareness Raising Campaign	£1,000	£4,500				£1,000		29.3
Voltage Optimisation Roll Out - Parkside Pools	£17,697	£3,200				£17,697		21.8
New project: Guildhall pipework and valve draught proofing	£22,955	£4,000	£22,955					25.0
New project: Solar PV at the Crematorium	£40,000	£6,000	£40,000					25.0
TOTAL FOR 2014/15	£414,748	£94,615	£126,939	£51,000	£8,000	£148,809	£80,000	490
2015/16								
North Area Housing Office - free cooling - controls for existing fans	£400	£21	£400					0.1
North Area Housing Office - pipework inspection/insulation	£1,000	£13	£1,000					0.1
North Area Housing Office - Heating Sequencing	£1,000	£124	£1,000					0.8
North Area Housing Office - secondary glazing	£2,500	£124	£2,500					0.8
North Area Housing Office - Heating optimum start controls	£3,000	£124	£3,000					0.8
Lighting Upgrades - Mill Road offices	£7,900	£2,304	£7,900					15.7
Lighting upgrades - Mandela House	£8,400	£2,376	£8,400					16.2
Lighting Upgrades - Mill Road garage	£11,250	£1,840	£11,250					12.5
Community Centres - Upgrade to condensing boilers	£120,000	£2,700	£18,000	£102,000				16.7
Upgrade to LEDs & lighting controls in Queen Anne Terrace car park	£175,000	£16,403	£100,000	£75,000				111.8
North Area Housing Office - upgrade to condensing boiler	£22,000	£292		£22,000				1.8
Voltage Optimisation Roll out - Ditchburn Place	£13,947	£2,199			£13,947			15
Implement RHI technologies - Housing property (Ditchburn Place)	£60,000	£4,500					£60,000	16.7
Ditchburn Place Refurbishment - energy efficiency improvements	£75,000	£4,320			£75,000			27.9
Replace 12 fleet vehicles with alternatives with Stop/Start technology	£2,100	£2,500		£2,100				3.3
New project: LED lights and motion sensors in the Guildhall basement.	£30,000	£6,000	£15,000	£15,000				40
New project: The remaining Climate Change Fund budget will be spent on retrofit measures identified by Cambridge Retrofit to improve energy efficiency of our administration buildings.	£51,711	TBC	£51,711	TBC	TBC	TBC	TBC	TBC
TOTAL FOR 2015/16	£585,208	£45,840	£220,161	£216,100	£88,947	£0	£60,000	280
TOTAL FOR BOTH YEARS	£999,956	£140,455	£347,100	£267,100	£96,947	£148,809	£140,000	770

Appendix C – Climate Change Fund expenditure to-date

(All figures £'s)	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Cumulative funding available by year	(250,000)	(243,900)	(207,465)	(383,145)	(396,269)	(409,749)
Additional contribution to Fund			(250,000)	(184,770)	(129,050)	
Total surplus available by year	(250,000)	(243,900)	(457,465)	(567,915)	(525,319)	(409,749)
Pilot of Electric Bin Lifts	2,100					
Chesterton Road Toilet Modernisation	900					
Corn Exchange Christmas Lighting Lamps	600					
Arbury Court WC Rainwater Harvesting	2,500					
Romsey Rec Rainwater Harvesting		2,500				
Energy Audit of Pools & Leisure Centres		3,750				
Grand Arcade Annex Car Park Fan system		21,700				
Public Conveniences & Park St Car Park Energy Survey		2,730				
Watercourses Flood Risk Survey			4,510			
Community Centres Energy Audits		2,995				
Corn Exchange LED lighting		2,760				
LED Lighting at the Grand Arcade Annex Car Park				100,000	(5,900)	
Mill Road water efficiency (1)			36,000			
Mill Road water efficiency (2)			11,700			
Replacement boiler - Barnwell House			3,150			
Guildhall Voltage optimisation			17,960			
Market Stall LED lighting			1,000	12,030		
Market Stall LED lighting - Bal Rtn to Fund				(12,030)		
Tree Canopy Study				10,870	4,130	
Community Centres energy efficiency measures				9,800		
Heat recovery at the Crematorium				11,600		
Water and energy saving measures in changing rooms at Parkside Pool				35,000		
LED audit of multi-storey car park lighting				5,420	1,080	
Refund from Power Perfector for Voltage Optimisation at Guildhall				(1,044)		
CM Plan Ref 17 : Voltage Optimisation at Mandela House (capital bid C2736 refers). Including £3,223 of additional IT costs.					21,960	
CM Plan Ref 11: Voltage Optimisation at Grafton East Car Park. Including additional £900 for Parkeon to be onsite.					13,921	
CM Plan Ref 22: Corn Exchange LED House Lights					25,700	
CM Plan Ref 12: Abbey VSD and BMS (38177)					24,650	
CM Plan Ref 16: Parkside VSD and BMS					42,640	
CM Plan Ref 15: Pool covers for Abbey and Parkside and consequent changes to heating system					23,270	
CM Plan Ref 30: Upgrade to LEDs & lighting controls in Grafton West Car Park						30,000
Voltage Optimisation rebate for Mandela House and Grafton East Car Park						(3,232)
Spend by year	6,100	36,435	74,320	171,646	115,570	62,649
Balance remaining carried forward	(243,900)	(207,465)	(383,145)	(396,269)	(409,749)	(347,100)
Those projects shown in highlighted cells are projects that are included in the Council's Carbon Management Plan 2011-2016						