



To: Executive Councillor for Finance and Resources:
Councillor George Owers

Report by: David Kidston and Clare Palferman

Relevant scrutiny
committee: Strategy & 13/7/2015
Resources
Scrutiny
Committee

Wards affected: Abbey Arbury Castle Cherry Hinton Coleridge
East Chesterton King's Hedges Market Newnham
Petersfield Queen Edith's Romsey Trumpington
West Chesterton

ANNUAL CLIMATE CHANGE STRATEGY, CARBON MANAGEMENT PLAN AND CLIMATE CHANGE FUND UPDATE REPORT

Key Decision

1. Executive summary

- 1.1 This report provides an update on progress during 2014/15 on actions to deliver the three strategic objectives of the City Council's current Climate Change Strategy, which covers a five year period from 2012/13 to 2015/2016. As part of this, the report includes an update on progress in implementing the Council's Carbon Management Plan. 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:

1. Note the progress achieved during 2014/15 in implementing the Climate Change Strategy and the Carbon Management Plan.
2. Note the Climate Change Fund Status Report

3. Background

- 3.1 The Climate Change 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 third year of the Strategy. A full list of progress towards all the 44 actions in the Action Plan is available on request.
- 3.3 Officers are currently developing a new Climate Change Strategy for the period 2016/17 to 2020/21. Community groups with an interest in climate change issues will be consulted as part of the development of the draft Strategy. The draft Strategy will be presented to Strategy and Resources Committee in October 2015 for approval for full public consultation later in the autumn.

4. 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 62 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).

4.2 A total of 35 carbon reduction projects have been delivered to date: 9 in 2011/12; 12 in 2012/13; 7 in 2013/14 and 7 in 2014/15. A full list of all the projects implemented is provided in Appendix A.

4.3 The 7 Carbon Management Plan projects delivered in 2014/15:

- Solar photovoltaics (PV) panels were installed at Cherry Hinton Village Centre to capture the sun's energy using photovoltaic cells, which convert the sunlight into electricity, which is used to run electrical appliances and lighting.
- The pool water at Kings Hedges Learner Pool was heated by electricity which is expensive, so heat pumps were installed to heat the pool instead. Even though the heat pumps need a small amount of electricity to operate, using the heat pumps to heat the pool water is far more efficient than just using electricity.
- The heating controls in the foyer at the Corn Exchange were upgraded to ensure the heating is only on when and where it needs to be.
- The Combined Heat and Power (CHP) unit at Parkside Pools had not been used for a number of years and has now been refurbished and is operational. CHP captures and utilises the heat that is a by-product of the electricity generation process. By generating heat and power simultaneously, CHP can reduce carbon emissions compared to the separate means of conventional generation via a boiler and power station.
- Voltage optimisation technology was installed at Abbey Pools to reduce the voltages received by appliances and lights running on electricity, in order to reduce energy use and power demand.
- Many of the lights at Abbey Pools have been replaced with more efficient LEDs alternatives to reduce electricity use.
- Awareness raising campaigns have been delivered across the swimming pools to make staff and customers aware of environmental issues and promote a cultural of environmental responsibility with the aim of reducing energy and water use further.

4.4 The total cost of the 7 projects implemented in 2014/15 was £108,037. The total cost of all 35 carbon reduction projects delivered to date (i.e. between 2011/12 and 2014/15) is

£1,448,397. It should be noted that, in accordance with the terms of the contract for leisure services, the costs of the 6 projects implemented at Council-owned pools in 2014/15 were met by the Council's current leisure contractor, Greenwich Leisure Limited (GLL).

- 4.5 It is estimated that the 7 projects delivered during 2014/15 have achieved on-going carbon savings of 327 tonnes of carbon dioxide equivalent (tCO₂e) and reduced the energy bills at the pools and the Corn Exchange by £59,505 per year. It is estimated that the 35 projects delivered to date have achieved on-going carbon savings of around 1,150 tCO₂e per year and reduced energy expenditure by around £203,000 per year.
- 4.6 Where tangible financial savings have been made, it was agreed that we would directly recoup savings from service budgets for projects where the implementation cost was more than £15,000 AND where annual savings were more than £1,000 per annum. In other words, we would plan to directly recoup £181,000 from the total estimated savings of £203,000. To date we have already recouped tangible savings of £170,705 per annum and an additional £10,000 will potentially be recouped as part of the budget in October 2015 if tangible savings have been made.
- 4.7 In regards to the savings made at the leisure centres during 2014/15, GLL's tender was based on them making the investments in these 6 carbon projects to drive down utility costs, which was then reflected in the Council's lower annual management fee. In effect, therefore, the Council has secured a financial saving in advance through the contract negotiations. GLL are not obligated to reduce their bills by a set financial amount per year, but it is one of their stated aims to reduce their energy consumption annually. They are however held to a capped financial and utility usage limit, that should they exceed, they are totally responsible for. Should the projects implemented by GLL exceed their expectations and savings are higher than estimated in their tender, the Council can seek to reduce the annual management fee further.
- 4.8 We have sought to quantify the ongoing financial savings and carbon savings resulting from carbon reduction projects as accurately as possible. It should be noted, however, that the actual amount of energy and fuel used at Council sites, and therefore the financial and carbon savings that are realised, may increase or

decrease from year to year as a result of other factors. These could include 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, the estimated financial savings provided at 4.5-4.7 should be viewed as 'project cost avoidance'. However, where tangible savings have been made, these have been recouped and are reported in this report.

2015/16 projects

4.9 To date we have delivered 35 of the 62 projects set out in the Carbon Management Plan, which leaves 27 projects still to be delivered. A total of 10 of these projects are now planned to be delivered during the final year of the current Carbon Management Plan in 2015/16 (see Appendix B for details). It is estimated that these projects will cost a total of £383,000 and deliver ongoing annual savings of £67,000 per year. It is estimated that they will reduce our carbon emissions by a further 310 tCO₂e per year. These are:

- Installing solar PV panels at the crematorium.
- Installing LED lighting at Grand Arcade Main Car Park.
- Installing lighting sensors at Whitefriars sheltered housing scheme.
- Upgrading the boilers at the community centres to condensing boilers.
- Replacing the boiler at Abbey Pools.
- Replacing the boiler at Cherry Hinton Village Centre.
- Replacing 12 fleet vehicles with alternative with stop-start technology.
- Introducing a drive incentive scheme to encourage more efficient driving of fleet vehicles.
- Staff awareness raising campaign at our administrative buildings.
- Staff awareness raising campaign at the community centres.

4.10 14 of the remaining 27 projects have been placed on hold pending decisions to be taken as part of the outcomes of the Office Accommodation Strategy, which will be presented to Strategy and Resources Committee in October 2015. This includes 3 projects at the Guildhall, 5 projects at Mandela House, and 6 projects at North Area Housing Office. Depending on the decisions taken regarding the future of these buildings as part of the Office Accommodation

Strategy, some of these projects will be postponed and delivered in subsequent years as part of wider refurbishments, while others may not be taken forward if the decision is taken to dispose of particular buildings. We will review the timescales for delivery of these projects once decisions have been taken on the Office Accommodation Strategy in October.

- 4.11 3 of the remaining 27 projects are at Ditchburn Place sheltered housing scheme. These projects were due to take place as part of the wider refurbishment of Ditchburn Place, which was originally due to take place during 2013/14, but has been postponed. It is currently anticipated that refurbishment work will start in April 2016. See Appendix C for a full list of postponed projects.
- 4.12 The 10 projects identified at 4.11 above for delivery in 2015/16 will be funded through a combination of the Climate Change Fund, the Repairs and Renewals Fund, the Housing Revenue Account and GLL. These projects will require a contribution of £161,000 from the Climate Change Fund, which will leave £186,000 remaining in the Climate Change Fund at the end of 2015/16. However, Council officers are also exploring the viability and business case for installing solar PV or solar thermal technology at further sites during 2015/16 using funding from the Climate Change Fund.

Carbon Management Plan 2016/17- 2020/21

- 4.13 Officers are currently developing a new Carbon Management Plan, which will provide the blueprint for reducing our emissions further between 2016/17 and 2020/21. The Plan will identify projects across our operational estate, administrative buildings and commercial property portfolio.
- 4.14 In recent years we have generally been picking the “low hanging fruit” – the smaller scale, easier to implement retrofit project. To reduce our energy bills and carbon emissions further, we will need to improve the fabric and insulation of our buildings, which is more difficult to do and requires specialist knowledge. We are currently exploring the potential to appoint Bouygues Energies and Services, via the County Council’s procured Energy Performance Contracting Framework, to carry out detailed energy surveys of some of our larger operational buildings to identify measures to make them even more energy efficient. The surveys conducted by Bouygues,

as well as surveys conducted by Council officers, will generate new project ideas for inclusion in the new Carbon Management Plan

Improvements to energy monitoring and baseline measurement

- 4.15 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, and therefore its total carbon emissions figures. This was because we were previously reliant on the data provided by our energy suppliers, which was based on a combination of irregular meter readings and *estimated* energy usage data.
- 4.16 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), which automatically and remotely read meters, at all major sites that did not previously have them. As an additional measure, we have ensured that officers now also take visual meter readings at all sites twice a year.
- 4.17 As a result of these measures, we now have reliable energy usage data for 2013/14 and 2014/15, and are able to reliably identify our total carbon emissions for these years. We are required to submit these figures annually to the Government in our annual Greenhouse Gas report. The report for 2013/14 is available on the Council's website here: <https://www.cambridge.gov.uk/climate-change>. We will be publishing our 2014/15 Greenhouse Gas report shortly, once it has been audited by the Council's internal audit services and our approach has been independently verified by the University of Cambridge.

Climate Change Fund status

- 4.18 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.

- 4.19 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 £1,800,000 in 2013/14.
- 4.20 A full break down of all expenditure from the Fund is provided in Appendix D. 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.
- 4.21 The current remaining balance of the Fund is £347,100. No additional provision was made in the Council's 2013/14 and 2014/15 budgets 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 2015/16 will require a contribution of £161,000 from the Climate Change Fund, which will leave £186,000 remaining in the Climate Change Fund at the end of 2015/16, as mentioned in paragraph 4.12 above.
- 4.22 Council may wish to consider making further provision for projects in the next Carbon Management Plan as part of the next budget round in October 2015.

5. 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, Refuse and Environment, and Estates and Facilities.

Planning policy and new development

- 5.2 Work is ongoing to develop a new Cambridge Local Plan, which will set out the planning framework to guide the future development of Cambridge to 2031. The proposed Local Plan was submitted to the Secretary of State on 28 March 2014, and a series of examination hearings have taken place between November 2014 and May 2015. The Councils received a letter from the Inspector in May asking for further work to be undertaken, which is now being progressed by officers. It is anticipated that the Local Plan will be approved later in 2016.
- 5.3 The draft Local Plan includes a range of policies to minimise the impact of future development in the City on climate change. These include:
- Action 15 a) Requiring high standards of sustainable building design, construction and operation for all non-residential development. A minimum of BREEAM¹ 'very good' certification for all non-residential development is required from 2014, rising to BREEAM 'excellent' from 2016.
 - 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.
 - 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

¹ BREEAM is an internationally recognised assessment method for sustainable building design, construction and operation

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.

5.4 As set out under action 15 a) in the Climate Change Strategy, a policy requiring a minimum of Code for Sustainable Homes Level 4 for all new residential development was included in the draft Local Plan. However, as a result of the Government's national Housing Standards Review, the Code for Sustainable Homes has been discontinued from March 2015. As a result, we will no longer be able to use planning policy to require new homes to be built to the Code for Sustainable Homes standards, or any other sustainable construction standard.

5.5 Appropriate modifications to the plan to take account of the Housing Standards Review will now be proposed. It is hoped that Local Plan policies can be retained which require new developments to demonstrate how they have met the principles of sustainable design and construction. Officers will also continue to work with developers to deliver sustainable housing developments and to promote other construction methodologies, including the new homes standard currently being developed by the Building Research Establishment (BRE).

5.6 The Council has also recently become the first local authority Developer Member of the Good Homes Alliance, which is a group of housing developers, building professionals and other industry supporters who are committed to promoting and delivering sustainable homes. The Council intends to use the learning from members of the group to help shape and set the sustainability standards for the construction of new Council homes. All new Affordable Housing developments completed in Cambridge in 2014/15 were constructed to Level 4 of the Code for Sustainable Homes and the City Council will continue to monitor new affordable housing completions against the standard in the future.

5.7 The Government's Housing Standards Review also recommended limiting the extent to which local planning authorities in areas of

water stress can set water consumption standards for new homes, with an optional standard of 105 litres per head per day available. The draft Local Plan includes a policy requiring water consumption in new homes to be no more than 80 litres per head per day in order to maintain sustainable water resources in the long term. It is, however, likely that we will only be able to require 105 litres/head/day through planning policy. Officers will continue to work with developers to attain higher levels of water efficiency and sustainable construction, including the delivery of new Council Housing through the application of the Good Homes Alliance Standard.

Energy efficiency in existing homes

5.8 The City Council has also assisted residents to reduce their carbon emissions through a range of measures in 2014/15 to improve the energy efficiency of existing homes in the City, including:

- Action 9 b): Improving the energy efficiency of Council homes, through: replacing 333 older boilers with more energy efficient condensing boilers; insulating the lofts of more than 200 homes; insulating the cavity walls of more than 150 homes; and applying external wall insulation to 20 properties. This work has helped ensure that the average SAP energy rating for Council properties increased from 70 in 2013/14 to 71 in 2014/15. This was in line with the target of increasing the average SAP score by 1 point per year.
- Action 11 d): Working with the five other Cambridgeshire local authorities in the Action on Energy partnership to jointly procure Climate Energy Ltd to provide Green Deal, Energy Company Obligation (ECO) and self-financed energy efficiency measures for privately-owned homes across Cambridgeshire. In April 2014, the Action on Energy partnership was awarded £7.8m from the Government's Green Deal Communities Fund. Part of this funding has been used to support homeowners to insulate solid wall properties. Funding has also focussed on encouraging the installation of improvements in the private rented sector. Since the scheme was launched over 500 quotations for Green Deal Communities work have been accepted with over 100 jobs installed.
- Publishing a comprehensive guide for residents on sustainable homes and living. The 'Greening Your Home' guide has been

distributed to community centres, libraries, residents associations and community and voluntary organisations, and is available on the Council's website here:

<https://www.cambridge.gov.uk/save-energy-water-and-money-at-home>. The guide provides information on saving energy in the home, but also includes sections on saving water, sustainable food, efficient use of resources, sustainable transport and greening your garden. The guide builds on national guidance on these issues and the experience of a number of London local authorities in producing guides, but it also signposts residents to support available from local groups in Cambridge.

Recycling

5.9 The Council has also assisted residents to reduce their carbon emissions through its recycling and waste collection services during 2014/15. For example:

- Action 12 b): The Council has carried out a number of campaigns to promote recycling to residents and businesses during 2014/15. These have included: promoting the Council's new food waste collection service to food-related businesses; promoting textile recycling and food waste recycling to residents, including kitchen caddy giveaways; and increasing the numbers of volunteers from the Recycling Champions scheme attending local events to provide information and support to residents on recycling issues.
- Action 13: In-cab technology has now been installed on most vehicles in the waste fleet, which will enable the Council to identify areas where recycling rates are lower and target future campaign work at these areas of the city.
- Action 14): In 2014/15 the Council increased the range of materials that can be collected and recycled, by adding plastic bags and film to kerbside collections. As a result Cambridge residents can now recycle almost all the dry waste items it is possible to recycle with current technology. In addition, mixed dry recycling banks have been provided at all the recycling points across the city, enabling a greater range of materials to be collected, and the number of banks for recycling small electrical items and textiles has been increased.

6. 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 A number of partnership projects with Cambridgeshire County Council were progressed in 2014/15 that will help promote a shift to more sustainable modes of transport in Cambridge, including:
- Installing new cycle racks in the city centre to provide an additional 600 cycle parking spaces.
 - Action 36: A number of major projects in the Transport Strategy for Cambridge and South Cambridgeshire will be implemented through the City Deal which will help reduce congestion and increase travel in Cambridge by sustainable modes of transport. Measures to be included in the first phase of City Deal funding are currently being considered ahead of public consultation in September 2015.
 - Action 37: Progressing a joint programme of improvements to existing highways for cyclists with Cambridgeshire County Council. These included completing the Perne Road/Radegund Road roundabout scheme, which will reduce vehicle speeds and increase cycle safety, and the widening of the avenue path on Jesus Green.
 - Action 38: Working with partners in the Quality Bus Partnership to ensure buses meet higher emissions standards. The Partnership set emissions standards for new buses for 2010-2015, which have been met for particulate matter and are very close to being met for nitrous oxides. The next Quality Bus Partnership agreement will run for 10 years from 2015-2025 and will enable a longer term approach to reducing emissions. New low emissions technologies will be introduced to the bus fleet as they come to market, using government funded initiatives where available.
 - Action 39: Following the implementation of the planned provision of car club spaces in the city in partnership with Cambridgeshire County Council in 2013/14, a policy on provision of on-street spaces for car clubs as part of major new developments has been included in the draft Local Plan.

Additional car club spaces are being secured through planning permissions for major developments such as the Clay Farm site to the south of the city and the University of Cambridge's North West Cambridge development.

- Contributing funding to the Travel for Cambridgeshire partnership, which works with employers to develop workplace travel and implement measures to reduce drive alone commuting and business travel. In 2014/15 the partnership worked with 119 employment sites in Cambridge which employ a total of 37,955 commuters.

6.3 In addition to the Action on Energy partnership outlined at 5.6, in 2014/15 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:

- Action 29: Working with the University of Cambridge to explore the financial viability and potential for a new district heating scheme connecting the New Museums site and the Guildhall and Corn Exchange.
- Action 31: Playing an active role in the Cambridge Retrofit project, which aims to demonstrate the business case for large scale energy efficiency improvements to public and private sector estates. A number of exemplar projects are currently being delivered, with RBS and the University of Cambridge taking forward retrofits at a number Cambridge buildings. In order to increase the number of exemplar projects in the city, the City Council and the University of Cambridge are currently working on a joint bid for European Structural and Investment Funds (ESIF).
- Actions 32 and 33: Housing development on City Council-owned land at Clay Farm has commenced, and all homes will be built to above Level 5 of the Code for Sustainable Homes. Construction work has also started on the new joint community centre at Clay Farm, which will be built to at least BREEAM excellent standards.
- 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:

- 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. Consultation of the draft SPD is due to take place in autumn 2015, with adoption taking place shortly after the adoption of the new Local Plan later in 2016.
- Working with partners in the Cambridge Sustainable Food partnership, including voluntary and community groups (e.g. Cambridge Carbon Footprint, Transition Cambridge, Foodcycle, Cambridge Cropshare, and Cambridge Past Present and Future), the University of Cambridge, Anglia Ruskin University and local businesses to promote sustainably produced food. The partnership has been accepted as a member of the national Sustainable Food Cities Network and is working towards achieving Sustainable Food City status. It has developed a detailed action plan which contains a number of Council-led activities, including: developing a programme of cooking skills projects for residents around the city, with a focus on cooking healthy, sustainable meals; promoting healthy and sustainable produce to food businesses as part of environmental health activities; and promoting take-up of allotments and community gardens and encouraging residents to grow their own produce.

6.4 The City Council has also worked closely with local voluntary and community groups during 2014/15 and helped build their capacity to undertake activities to address climate change. It has provided a total of £30,000 in grants to 13 local environmental groups as part of the annual Sustainable City Grants programme. A total of 17 projects were supported which ranged from repairing and reusing household items to developing skills and spaces for residents to grow their own food. The Council also awarded £12,070 in cycling and walking promotion grants to local groups for a range of projects, including cycle storages facilities for the YHA, and cargo bikes for a social enterprise run by a homeless support charity.

7. 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 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.

5. 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>

6. Inspection of papers

To inspect the background papers or if you have a query on the report please contact:

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7. Appendices

Appendix A – Details of Carbon Management Plan projects implemented between 2011/12 and 2014/15

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

Appendix C - Carbon Management Plan projects that have been postponed

Appendix D – Climate Change Fund expenditure to-date

Appendix A: Details of Carbon Management Plan projects implemented between 2011/12 and 2014/15

Projects costing less <£15k or annual savings <£1k. Therefore savings not recouped.

HRA or GLL 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 Learner 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; Heating optimum start controls; and pipework inspection & insulation	Jim Stocker	£33,394	10	£1,560	£1,600	Yes - already recouped	1,600
25								
26								
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 in Grafton West Car Park	Sean Cleary	£30,000	17.0	£3,132	£3,132	Yes - already recouped	£3,100
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	
2014/15								
	Corn Exchange - Heating Controls in foyer	Chris Norton	£8,213	1.9	£2,000		No - savings recouped by Cambridge Live instead	
	Cherry Hinton Village Centre - Solar PV	GLL	£15,072	4.9	£2,332	£2,332	Savings already recouped through a reduction in the annual management fee for the leisure centres	£2,332
	Kings Hedges Learner Pool - Heat Pumps	GLL	£24,522	33.2	£10,063	£10,063		£10,063
	Abbey Pools - Voltage Optimisation	GLL	£19,874	41.0	£8,226	£8,226		£8,226
	Parkside Pool - Combined Heat and Power (CHP) Refurbishment	GLL	£19,750	176.1	£25,000	£25,000		£25,000
	Abbey Pools - LED lighting upgrade	GLL	£19,606	29.9	£7,384	£7,384		£7,384
	Pools - Awareness Raising Campaign	GLL	£1,000	40.0	£4,500	£4,500		£4,500
		TOTAL	£1,448,397	1,155	£202,802	£180,666		170,705

Appendix B: Details of the Carbon Management Plan projects proposed for implementation during 2015/16

Project	Estimated Total Implementation Cost	Estimated Annual Cost Avoidance (£)	CC Fund Contribution	R&R Contribution	HRA	GLL	Estimated annual carbon savings - tonnes of CO2 (tCO2)
Community Centres - Upgrade to condensing boilers	£120,000	£2,700	£18,000	£102,000			16.7
Upgrade to LEDs & lighting controls in Grand Arcade Main Car Park	£175,000	£16,403	£100,000	£75,000			111.8
Replace 12 fleet vehicles with alternatives with Stop/Start technology	£2,100	£2,500		£2,100			3.3
Solar PV at the Crematorium	£40,000	£6,000	£40,000				25.0
Community Centres - Awareness Raising Campaign	£1,000	£2,000	£1,000				12.9
Staff Awareness Campaign for all offices	£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
Install lighting sensors at Whitefriars	£8,000	£600			£8,000		3.3
Abbey Pools - Replacement Boiler	£30,000	£1,000				£30,000	10.0
Cherry Hinton Village Centre - boiler replacement	£5,000	£200				£5,000	1.8
Possible project: The remaining Climate Change Fund budget will be spent on the installation of solar PV and solar thermal at appropriate sites	£186,100	TBC	£186,100	TBC	TBC	TBC	TBC
TOTAL FOR 2015/16	£569,200	£67,023	£347,100	£179,100	£8,000	£35,000	310

Appendix C: Carbon Management Plan projects that have been postponed

Project	Estimated Total Implementation Cost	Estimated Annual Cost Avoidance (£)	CC Fund Contribution	R&R Contribution	HRA	Estimated annual carbon savings - tonnes of CO2 (tCO2)
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
North Area Housing Office - upgrade to condensing boiler	£22,000	£292		£22,000		1.8
Voltage Optimisation at Ditchburn Place	£13,947	£2,199			£13,947	15
Solar thermal technology at Ditchburn Place	£60,000	£4,500			£60,000	16.7
Ditchburn Place Refurbishment - energy efficiency improvements	£75,000	£4,320			£75,000	27.9
Guildhall pipework and valve draught proofing	£22,955	£4,000	£22,955			25.0
Lighting upgrades to the third floor of The Guildhall	£2,400	£728	£2,400			5.0
LED lights and motion sensors in the Guildhall basement	£30,000	£6,000	£15,000	£15,000		40.0
Mandela House - upgrade to condensing boiler	£60,000	£2,464	£9,000	£51,000		15.2
Mandela House - controls for existing fans	£600	£190	£600			1.3
Mandela House - pipework and valve insulation	£8,628	£2,000	£8,628			12.0
Mandela House - Draught proofing on first floor	£4,000	£262	£4,000			1.6
Mandela House - Lighting upgrades	£8,400	£2,376	£8,400			16.2
TOTAL FOR 2015/16	£315,830	£29,737	£78,883	£88,000	£148,947	180

Appendix D: Climate Change Fund expenditure to-date

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
(All figures £'s)	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
Cumulative funding available by year	(250,000)	(243,900)	(207,465)	(383,145)	(396,269)	(409,749)	(347,100)
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)	(347,100)
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 -Balance Returned 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	0
Balance remaining carried forward	(243,900)	(207,465)	(383,145)	(396,269)	(409,749)	(347,100)	(347,100)
Those projects shown in highlighted cells are projects that are included in the Council's Carbon Management Plan 2011-2016							