

Item

ANNUAL CLIMATE CHANGE STRATEGY AND CARBON MANAGEMENT PLAN UPDATE REPORT

To:

Councillor Rosy Moore, Executive Councillor for Climate Change,
Environment and City Centre
Environment and Community Scrutiny Committee 07/10/2021

Report by:

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Wards affected:

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

Not a Key Decision

1. Executive Summary

1.1 This report provides an update on progress so far in 2021 on the 2021/22 actions of the Council's Climate Change Strategy 2021-26. As part of this, the report includes an update on progress in implementing the projects to reduce our direct carbon emissions from our corporate buildings, fleet vehicles and business travel as detailed in the Council's Carbon Management Plan 2021-26.

1.2 The report also provides an update on:

- The council's Greenhouse Gas Emissions for 2020/21
- UK100's Net Zero Pledge as in Appendix C

2. Recommendations

The Executive Councillor is recommended to:

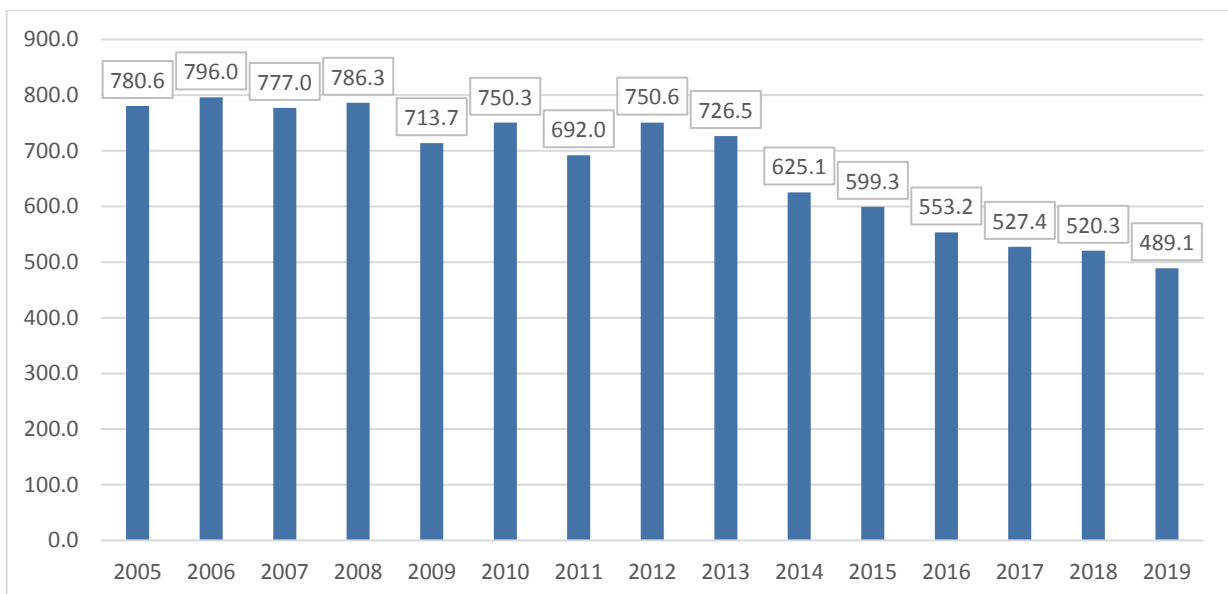
1. Note the progress achieved in the first five months of 2021/22 in implementing the actions in the Climate Change Strategy and Carbon Management Plan.
2. Approve the updated Climate Change Strategy action plan presented in Appendix A.
3. Sign UK100's new Net Zero Pledge as detailed at Appendix C.

3. Background

Carbon emissions in Cambridge

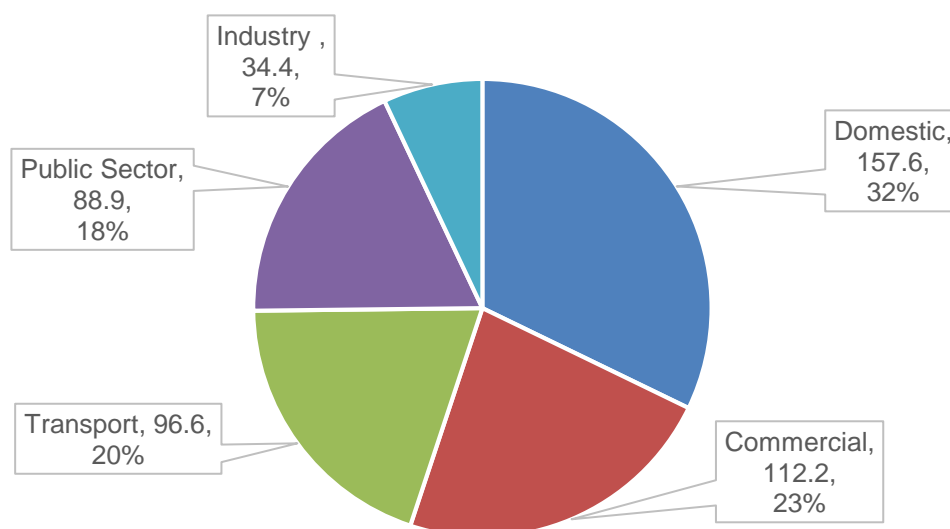
- 3.1 As shown in Chart 3 below, the latest available national carbon dioxide emissions estimates, produced by the Department for Business, Energy and Industrial Strategy (BEIS), show that total emissions in Cambridge have declined steadily over the last 14 years. Total emissions from Cambridge have reduced by more than a third (37%), from 780.6 ktCO₂ in 2005 to 489.1 ktCO₂ in 2019.

Chart 1: Total Carbon Emissions in Cambridge 2005-2019 (ktCO₂)



- 3.2 While the Council, residents and partners in the city have taken a range of action over this period, the reduction in emissions from Cambridge (and other cities) in more recent years has been driven primarily by reduced use of coal in electricity generation and the increased use of renewable energy generation at a national level.
- 3.3 The Council's Climate Change Strategy focusses on reducing direct carbon emissions from the key sources of emissions in the city and where the Council has most influence.
- 3.4 As shown by the chart below, the greatest source of emissions in Cambridge in 2019 was energy consumption (heating and powering homes) from domestic properties at 32% (UK average was 27%), which suggests that continued action is needed to reduce carbon emissions from homes in the city.

Chart 2: Sources of Carbon Emissions in Cambridge in 2019 (ktCO₂)



- 3.5 For the first time, the industrial sector, commercial sector and public sector are presented separately in BEIS' local authority area statistics¹. Previously, these three sectors have been grouped together as the 'Industrial and Commercial' sector. In the new data set, emissions from commercial properties (shops and businesses) account for a significant

¹ www.gov.uk/government/collections/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics

proportion of emissions in Cambridge (23%) which is a much higher proportion compared to the UK average emissions from this source, which was 9%. In contrast, emissions from industry was the lowest proportion of emissions at 7% (the UK average for LA areas was 24%).

- 3.6 Transport was the second highest proportion at 20% (UK average was 36%), which suggests that actions to reduce emissions from transport are also important in reducing carbon emissions in the city.
- 3.7 Transport is closely followed by the public sector (councils, health and education bodies) at 18% which is high compared to the UK average for LA areas (4%). This is a result of the size and number of universities, hospitals and other public organisations in the city. Cambridge City Council was only directly responsible for 1.2% of total carbon emissions in the city in 2019, so there is a need for significant action by businesses and other public organisations in the city, to reduce their emissions if Cambridge is to become zero carbon.
- 3.8 Cambridge has the lowest per capita emissions (emissions per unit of population) in Cambridgeshire and Peterborough as shown in Table 1 below. Table 2 on the next page shows per capita emissions in Cambridge compared to cities in England with comparable populations (ranging from 99,000 to 195,000) and functions.

Table 1

Cambridgeshire Local Authorities	Per Capita Emissions (tCO₂)
East Cambridgeshire	14.9
Fenland	14.2
Huntingdonshire	9.0
South Cambridgeshire	7.6
Peterborough	5.5
Cambridge	3.9

Table 2

Local Authorities comparable to Cambridge	Per Capita Emissions (tCO₂)
Cheshire West & Chester	11.2
Peterborough	5.5
UK Average	5.2
Chelmsford	4.6
Oxford	4.0
Cambridge	3.9
York	3.8
Gloucester	3.7
Lincoln	3.2
Norwich	3.2
Exeter	3.1
Ipswich	2.8

Climate Change Strategy

3.9 The Council's current Climate Change Strategy 2021-26 was approved at the Environment and Community Scrutiny Committee meeting in March 2021. The strategy shares a vision for Cambridge to be net zero carbon by 2030, subject to Government, industry and regulators implementing the necessary changes to enable the city and the rest of the UK to achieve this. This vision recognises that, while the Council can take the actions identified in the strategy's Action Plan and use its policies and regulatory powers to influence emissions in some sectors, the actions and choices of national government, businesses, organisations and individuals have a very significant impact on emissions in the city.

3.10 The Council's strategy sets out six key objectives for how we will address the causes and consequences of climate change:

1. Reducing carbon emissions from city council buildings, land, vehicles and services
2. Reducing energy consumption and carbon emissions from homes and buildings in Cambridge
3. Reducing carbon emissions from transport in Cambridge

4. Reducing consumption of resources, reducing waste, and increasing recycling in Cambridge
5. Promoting sustainable food
6. Supporting Council services, residents and businesses to adapt to the impacts of climate change

3.11 The Council is taking a wide range of direct actions, set out in the Climate Change Strategy Action Plan, which will contribute to reducing emissions in Cambridge to help deliver the vision for Cambridge to be net zero carbon by 2030. This report provides details of progress on some of the key actions during the first six months of the new strategy (see sections 4 to 9 below).

3.12 A revised and updated Action Plan is presented for approval at Appendix A. The key changes to the Action Plan are:

- Adding milestones to each action to provide an indication of when they will be delivered during the 5-year period of the strategy.
- Adding information on the resources allocated to actions.
- Providing targets, where appropriate, for the actions.

Communications, engagement and collaboration

3.13 To raise awareness and encourage action to help the city to achieve net zero carbon emissions, communication and engagement is a key priority for the Council's work on climate change. Council communications focus on a range of issues, including helping residents to make well-informed low carbon choices about their home, raising awareness and encouraging residents to recycle more and messages encouraging residents to choose sustainable, local food and to reduce meat consumption. Key communication and engagement activities carried out or underway in 2021:

City Leaders Climate Change Group and Local Climate Change Forum

3.14 The Council convened 6 thematic meetings of the City Leaders Climate Change group between 2017 and 2020, which brought together

businesses, universities, public sector organisations and voluntary and community groups to explore how emissions in the city can be reduced.

- 3.15 In 2021 the membership of the City Leaders Group was refocused to include the major businesses and public sector organisations (such as Cambridgeshire County Council, the University of Cambridge, Anglia Ruskin University and Cambridge University Hospitals Trust) that contribute most to direct carbon emissions in Cambridge, with a view to sharing good practice and exploring opportunities for collaboration.
- 3.16 At the first meeting of the refocused group in January 2021, Anglian Water presented their work towards achieving net zero carbon and increased resilience, and the group discussed the key priorities for the Council's new Climate Change Strategy. At a second meeting in July 2021, members of the group were invited to provide updates on activities to reduce their carbon emissions, and Cambridge Zero (the University of Cambridge climate change initiative) presented their plans to engage with businesses and support them to reduce emissions.
- 3.17 Since August 2020, the Council has also convened 5 meetings of the Climate Change Forum, which brings together the Council and local voluntary and community groups focusing on climate change issues (including Cambridge Carbon Footprint, Cambridge Sustainable Food, Carbon Neutral Cambridge, Friends of the Earth and Transition Cambridge). These meetings have provided an opportunity to comment on the Council's Climate Change Strategy and related activities, and to explore opportunities for collaborative activities to help address climate change. For example, in October 2021, the Council, CCF, CSF and Transition Cambridge will be running a joint online engagement event as part of the Cambridge Zero Festival, which will provide advice to residents on the practical steps they can take to reduce their emissions and help Cambridge to achieve net zero carbon emissions.

ClimateView

- 3.18 Since October 2020 we have been working with the ClimateView system to help identify and visualise the 33 interventions (e.g. retrofit of homes and commercial buildings, increasing electricity generation from

solar PV panels, shifting journeys from petrol and diesel vehicles to electric vehicles, cycling, walking and public transport etc.) that would be needed in different thematic areas (e.g. energy, transport and waste) in order for Cambridge to reach net zero carbon emissions.

3.19 The Cambridge ClimateBoard developed in ClimateView uses local and national data to identify the scale of change needed for each solution. The ClimateBoard is a work in progress, but we have provided extracts at Appendix D for one climate solution (heat pumps in homes) to illustrate how the system works.

3.20 ClimateView enables us to identify the rate of transition that would be needed for each climate solution. Using the example of heat pumps in homes, we have included two different transitions in Appendix D:

- one transition that would help achieve net zero carbon by 2050 (which is the current national legislative target).
- one transition that would help achieve net zero carbon emissions by 2030 (which is the Council's vision for Cambridge).

3.21 As the heat pump example illustrates, the 2050 transitions are more achievable because they are consistent with current Government policy and funding, whereas the 2030 transitions would be much more challenging to deliver without increased Government support:

- **Heat pumps 2050 transition** - Chart 1 shows a transition to 12% of homes in Cambridge heated by heat pumps in 2030, which could reduce carbon emissions in the city by 8 KtCO₂e. This is consistent with the national Committee on Climate Change's analysis that to reach net zero carbon by 2050 nationally, 12% of UK homes would need heat pumps by 2030 and 52% would need heat pumps by 2050². Currently only 1% of UK homes have heat pumps. Current Government policy would support this transition, such as the proposed ban on new boilers in new builds by 2025 and a requirement for replacement gas boilers to be phased out by the mid-2030s, and limited funding for renewable heat installations

² UK Climate Change Committee, 2020, the Sixth Carbon Budget: the UK's path to Net Zero, <https://www.theccc.org.uk/publication/sixth-carbon-budget/>

and housing retrofit³.

- **Heat pumps 2030 transition** - Chart 2 shows a much more rapid transition to 52% of homes in Cambridge with heat pumps by 2030, bringing forward the Climate Change Committee's transition by 20 years. This could reduce emissions in Cambridge by 35 KtCO_{2e} but would be much more challenging to achieve without changes in Government policy and funding.

3.22 ClimateView also allows us to identify actions that stakeholders in the city will take to help achieve these interventions. We are currently working with partners in the City Leaders Climate Change Group and the Climate Change Forum to identify actions, with a view to developing a city-wide action plan using ClimateView.

Cambridge Climate Change Charter

3.23 The Council supports residents to make well-informed low carbon choices about their home and other emissions and engages and encourages businesses to invest in their buildings through the Cambridge Climate Change Charter. The new Charter website, developed by Cambridge Carbon Footprint enables residents to calculate their carbon footprint and pledge to take specific actions to reduce this footprint, including emissions from their homes, transport and waste. Businesses can also sign the charter on the website and pledge to take specific actions to reduce their footprint. The Charter website also signposts residents and businesses to sources of further relevant information and support and can be found here: <https://cambridgecarbonfootprint.org/charter/>. The contract with CCF has been extended to continue until June 2022 to allow further activities, events and promotion of the Charter to continue into 2022.

Zero Carbon Bus tour

3.24 Cambridge hosted a stop on the national Zero Carbon Bus Tour on 31 August 2021 at Storey's Field Centre, Eddington. The UK's first 100% electric coach arrived at the event on its way to Glasgow for COP26. An

³ UK Government, December 2020, Energy White Paper, 'Powering our net zero future', <https://www.gov.uk/government/publications/energy-white-paper-powering-our-net-zero-future>

event for SMEs (small and medium sized businesses) was jointly hosted by the organisers Planet Mark, Cambridgeshire and Peterborough Combined Authority, Cambridgeshire County Council and Cambridge City Council. Attendees online and in person heard from a number of speakers including Dr Emily Shuckburgh from Cambridge Zero and representatives from local business that had embedded sustainability into their practices to inspire others to take action.

Case studies

- 3.25 A recent press release⁴ issued by the Local Government Association (LGA) on the climate emergency and biodiversity included the Cambridge Canopy Project⁵ as an example of innovative and effective council plans to increase and protect biodiversity. This was as result of submitting a case study on the project to the LGA for their COP26⁶ campaign.

Staff training in carbon literacy

- 3.26 An Environmental Awareness course (CPD Certified⁷) which is available on the Council's new E-learning Service will be added to the staff induction programme and all staff will be asked to complete the 30-minute online training. Training for senior managers and councilors will be developed and will include key information about climate change, the actions the Council is delivering and how they can help the Council achieve the vision for the Council to be net zero carbon by 2030 and for the Council to reduce the direct carbon emissions from its corporate buildings, vehicle fleet and business mileage to net zero carbon by 2030 including use of the Council's Climate Change Rating tool to inform council decisions.

UK100 Membership Pledge

⁴www.local.gov.uk/about/news/climate-emergency-lga-poll-shows-more-nine-10-residents-support-increased-biodiversity

⁵ www.local.gov.uk/case-studies/cambridge-city-council-cambridge-canopy-project-building-climate-resilience-future

⁶ The UK will host the 26th UN Climate Change Conference of the Parties (COP26) in Glasgow on 31 October – 12 November 2021: <https://ukcop26.org/>

⁷ Continuing Professional Development Certification Service: <https://cpduk.co.uk/>

- 3.27 The UK100 is a network which brings together local authorities across the country to support the transition to net zero carbon emissions. UK 100 facilitates local authorities to share knowledge, collaborate, and jointly petition the UK government on net zero carbon issues.
- 3.28 The current UK100 Net Zero Pledge replaces the previous pledge that was launched in 2015 and was signed by the Council, which was a commitment of 100% clean energy by 2050. The new pledge has been introduced to reflect the significant increase in ambition and activity by councils since the previous pledge and is a wider commitment on climate action.
- 3.29 To become a member of UK100⁸, the council must sign and adopt the new Net Zero Pledge⁹ which includes the following commitments:
1. Have set ambitious Net Zero targets for greenhouse emissions of 2030 for council operations and 2045 for area-wide emissions at the latest.
 2. Report their carbon emissions annually, for scope 1 and scope 2, for council emissions and areawide emissions.
 3. Commit to limiting the use of offsets, and if used, to be as local as possible.
- 3.30 The pledge aims to amplify the ambition of local leaders, and will be used in advocacy for greater powers, funding and collaboration from national government to enable local climate action and so is consistent with the element of our Climate Change Strategy on jointly lobbying Government for investment and regulatory change to enable net zero.

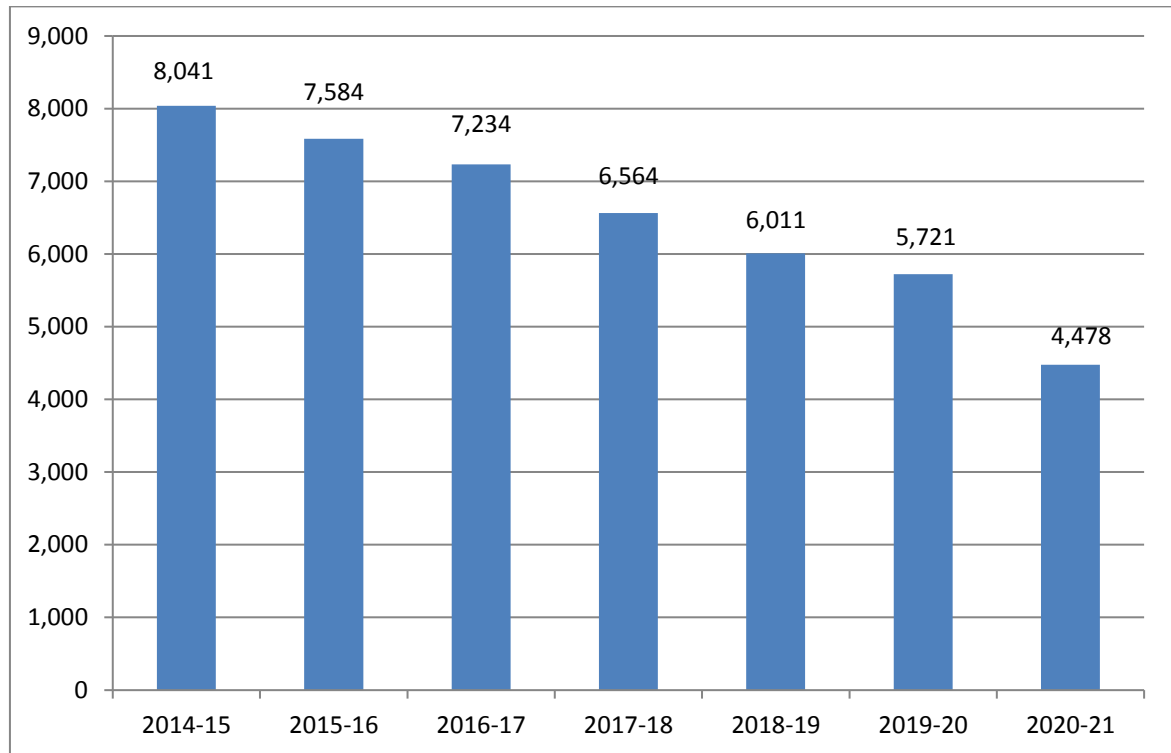
Cambridge City Council's carbon emissions and Carbon Management Plan 2021-26

- 3.31 As shown by the chart on the next page, the Council's greenhouse gas emissions were 21.7% lower in 2020/21 than in 2019/20. Total gross emissions reduced from 5,721 tonnes of carbon dioxide equivalent (tCO_{2e}) in 2019/20 to 4,478 tCO_{2e} in 2020/21.

⁸ <https://www.uk100.org/membership>

⁹ <https://www.uk100.org/publications/uk100-membership-pack>

Chart 3. Council's Carbon Emissions (tonnes CO₂)



3.32 The Council had set a target in its Carbon Management Plan 2016-21 to reduce carbon emissions from its buildings and services by 15% by the end of March 2021, with an aspiration to reduce emissions by 20%. The Council's greenhouse gas emissions were 44.3% lower in 2020/21 than in 2014/15 (the baseline year for the Carbon Management Plan). Total gross emissions were lower by 3,563 tCO₂e in this period, from 8,041 tCO₂e in 2014/15 to 4,478 tCO₂e in 2020/21.

3.33 The reduction in the Council's carbon emissions from 2014/15 to 2019/20 was partly due to steps that the Council has taken, including rationalising its office accommodation, investing in energy efficiency and renewable energy measures in its buildings, and reducing carbon emissions from its fleet vehicles. The reduction was also partly due to the decarbonisation of electricity generation at a national level, through the progressive closure of coal-fired power stations and increasing renewable electricity generation.

- 3.34 It should be noted that 2020/21 was an exceptional year due to the impact of the coronavirus pandemic and the restrictions imposed by the government. In some cases, we could operate a near “business as usual” service, such as our collection of waste bins, but some other services had to be closed for certain periods, such as our swimming pools and community centres. Whilst use of some council services reduced significantly, the council had to respond to demands for other, new services and activities to support Cambridge’s businesses and communities in ways we hadn’t anticipated or planned for. We also saw a significant increase in demand for some of our existing services at different times of the year, as a sequence of national lockdowns were implemented and then lifted.
- 3.35 The exceptional nature of 2020/21 is reflected in significantly lower direct carbon emissions for the Council in that year. The restrictions imposed by government resulted in the closure of some buildings during the lockdown periods (such as the Council’s leisure centres) and reduced opening hours or capacity of other Council buildings. As a result, a number of council buildings consumed less electricity and gas during this period.
- 3.36 Carbon emissions from the Council’s vehicle fleet did not reduce significantly, as the Council continued to provide essential services such as refuse collection and street cleaning. However, there was a marked reduction in business mileage for staff and Councillors as a result of meetings being held online and non-essential travel being reduced.
- 3.37 The Council has set an ambitious target in the Carbon Management Plan 2021-26 to deliver Objective 1 of the strategy, which is to reduce direct carbon emissions from our corporate buildings (including swimming pools, office buildings, car parks, sheltered housing schemes, community centres, arts venues and the crematorium), fleet vehicles (including vans, trucks and refuse vehicles), and business travel, to net zero by 2030.
- 3.38 Details of the carbon reduction projects to be delivered during 2021/22 are provided in section 4 below, and a table providing further

information on these projects is included in the Carbon Management Plan at Appendix B.

3.39 As shown by the chart below, in 2020/21 the council's emissions came from a number of different sources. The greatest proportion of emissions during this exceptional year, came from the Council's fleet vehicles (29%) (includes waste vehicles), followed by sheltered housing communal areas (17%), leisure centres and pools (11%), administration buildings (10%), car parks (10%), crematorium (7%), and community centres (5%). Given that 2020/21 was an exceptional year due to Covid, for comparison, Chart 5 on the next page shows carbon emissions by source for 2019/20, which was a more typical year. The Carbon Management Plan details carbon and energy reduction projects in the areas of activity which contribute most to the Council's emissions.

Chart 4: Council's Carbon Emissions by Source (tCO₂e) in 2020/21

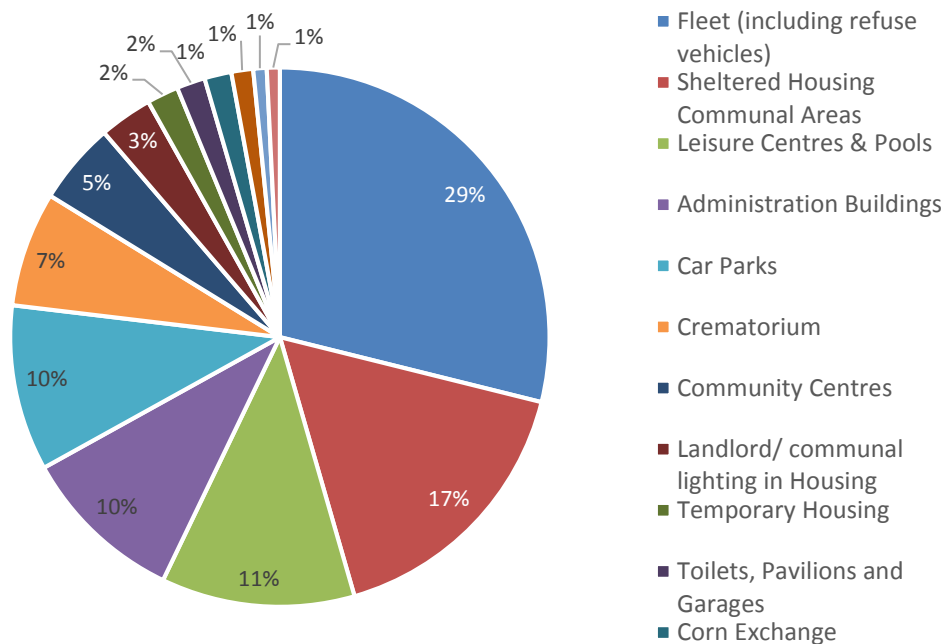
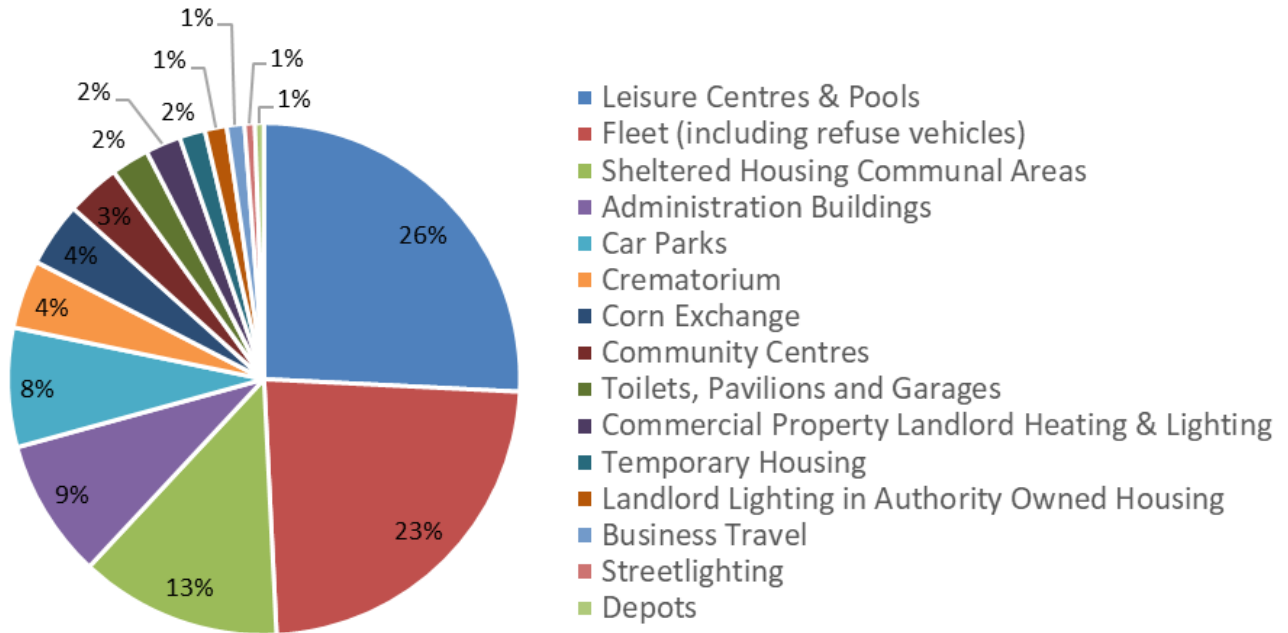


Chart 5: Council’s Carbon Emissions by Source (tCO₂e) in 2019/20



Reporting Carbon Emissions

3.40 The Council calculates its carbon emissions from its estate and operations, and reports these to Government in our annual Greenhouse Gas report. The report for 2020/21 is available on the Council’s website here: www.cambridge.gov.uk/carbon-management-plan.

3.41 Since 2016 the council has also reported the council’s activities to reduce the council’s and the city’s emissions and adapt to climate change to [CDP](#) (formerly the Carbon Disclosure Project). CDP run the global disclosure system that enables companies, cities, states and regions to measure and manage their environmental impacts. The Council’s 2020 response was awarded a score of B within the ‘Management’ scoring band (the Europe regional average was C). The Mitigation score indicates that “a Management level city has a clear understanding of their city-wide emissions through their inventory, their action plan is in implementation and the city has emission reduction targets and actions in place to mitigate the effects of climate change”. The adaptation score indicates that “a Management level city has assessed the impacts of climate change; an adaptation plan is in implementation and the city is taking action to adapt to the effects of climate change”.

3.42 Cambridge was one the first UK cities to report to CDP and was one of 33 UK cities to report to CDP in 2020. Only those cities that scored A were reported publicly, of which the Greater London Authority, Bristol, Newcastle, Bournemouth, Christchurch and Poole Council were the only UK cities to achieve this score.

4. Progress in delivering the key actions under Objective 1

Emissions from the Council's estate

4.1 Action 1.1: Reducing emissions from the Council's building estate:

Objective 1 of the Climate Change Strategy, 'Reducing carbon emissions from the City Council's buildings, land, vehicles and services', will be delivered primarily through carbon and energy reduction projects as part of the Council's Carbon Management Plan 2021-26. We are exploring the possibility of heat networks to decarbonise some of the Council's more difficult buildings to get to net zero such as the Corn Exchange and Guildhall. The following projects were progressed on the Council's estate so far in 2020/21:

- Asset Management Plan – As agreed at Environment and Community Scrutiny Committee in March 2021, an officer group has been established to take forward work to develop an Asset Management Plan for the buildings included in the Greenhouse Gas Report which have the highest carbon emissions. The Asset Management Plan will set out a planned 30-year maintenance plan for these buildings, together with decarbonisation plans for each of these buildings between now and 2030 to allow the Council to meet its net zero carbon target. A full update on this work will be provided to Committee in March 2022.
- Parkside and Abbey Pools: Following successful applications for a total of £1.7m from the Government's Public Sector Decarbonisation Scheme (PSDS), the Council will install the following measures by March 2022 through Bouygues Energies & Services via the REFIT 3 Energy Performance Contract¹⁰:

¹⁰ <https://localpartnerships.org.uk/our-expertise/re-fit/>

- Parkside Pool: 2 air source heat pumps¹¹ (ASHP) (due to be delivered to site in October, planning permission has been approved), additional solar PV, an LED lighting upgrade, BEMS¹² and pipework insulation. The ASHPs will work with the existing CHP¹³ unit to provide heat to the air plant and domestic hot water services at the pool. Improved controls will further reduce energy consumption.
- The current, aged boilers in the main plantroom will be replaced with new, smaller condensing gas boilers which will be much more energy efficient. These will serve as backup boilers for the ASHP, to be used when demand is high.
- All the measures listed above for Parkside Pool will reduce the energy consumption of Parkside Pool by approximately 37.5%, reducing emissions by approximately 368.3 tonnes of CO₂, which will reduce the Council's total carbon emissions by approximately 6.4%.
- Abbey Pool: An air source heat pump (ASHP) (due to be delivered to site in October), BEMS, an LED lighting upgrade, and pipework insulation will be installed which will reduce the centre's energy consumption by approximately 47.5%, reduce carbon emissions by approximately 184 tonnes of CO₂ and reduce the Council's total carbon emissions by approximately 3.2%.
- Corn Exchange: New heating boilers are due to be installed by the end of October 2021. The measures, which also include a new air handling system and insulation to pipework; a BEMS to maximise the efficiency of mechanical plant and ventilation systems (including modification of the heating distribution system in the building), and LED lighting upgrade and insulation will reduce the building's energy consumption by approximately 18.9%, reduce carbon emissions by approximately 43 tonnes CO₂ and reduce the Council's total carbon

¹¹ Heat pumps are a form of electric heating where energy is extracted from the air (ASHP) or the ground (GSHP) in order to provide space or water heating at a high efficiency. Installing a heat pump significantly reduces the requirement for gas for heating (which generates high levels of carbon emissions) as they use

¹² Building Energy Management Systems (BEMS) are integrated, computerised systems for monitoring and controlling energy-related building services plant and equipment such as heating, ventilation and air conditioning (HVAC) systems.

¹³ Combined heat and power (CHP) is a highly efficient process that 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 by up to 30% compared to the separate means of conventional generation via a boiler and power station.

emissions by approximately 0.8%. Ensuring that the building has a functional heating system in the near term will provide the time necessary to fully develop a longer-term scheme to further reduce carbon emissions, reduce the current carbon emissions, and also remove the immediate risks to the operation of the venue linked to a heating system failure.

- Sackville Close: Works are underway to replace the landlord lighting/communal lights at this Council housing location with LED lamps and appropriate controls and are due to be completed in September 2021.
- Park Street Car Park Redevelopment: The car park, which will be redeveloped and is due to re-open in August 2024, will be built to BREEAM¹⁴ excellent standard and will include air-source heat pumps, mechanical ventilation heat recovery and solar PV panels. The car park will also initially provide 10% of its spaces with electric vehicle charging points with the infrastructure put in place to expand this to 100% to meet future demand.

Emissions from the Council's fleet vehicles and business mileage

4.2 Action 1.5 - Waste fleet replacement: Orders have been placed by the Greater Cambridge Shared Waste Service for two further electric Refuse Collection Vehicles (RCVs) for use across the service, which are due for delivery between December 2021 and the end of March 2022 to be commissioned by May 2022. This will bring the total number of electric RCVs to 3 and the service will seek to replace all RCVs with low carbon alternatives at the point when they are due for replacement.

4.3 E-Cargo bikes: Two E-Cargo bikes have been supplied to the Council following a joint funding bid to the Department for Transport with Cambridgeshire County Council. The bikes have been added to the Council's existing pool bike scheme, where staff can borrow bikes for journeys for council business instead of using a car or other vehicle.

Improvements to Commercial Properties:

¹⁴ BREEAM is an international scheme that provides independent third party certification of the assessment of the sustainability performance of individual buildings, communities and infrastructure projects:

www.breeam.com/discover/how-breeam-certification-works/

4.4 Action 1.6 - Complete assessment of all Energy Performance Certificates for commercial properties - August 2021: Energy Performance Certificates (EPCs) have now been completed for most of the commercial properties owned by the Council and a provisional redevelopment programme has been agreed. Action plans for all properties will be prepared by November 2021 to identify prioritisation of works.

Additional Council carbon reduction actions

4.5 Action 1.12 - Revise and update the existing Climate Change Assessment tool: Council officers are required to complete a Climate Change Rating Tool for every committee report, business case and budget bid. The tool identifies positive or negative impacts on climate change mitigation and adaptation. The tool has been updated. to capture how projects will impact the Council's vision for Cambridge to be net zero carbon by 2030 and the target to reduce our own direct carbon emissions to net zero carbon by 2030, how negative impacts will be mitigated and whether a net zero carbon option has been considered.

4.6 The title of the committee report's 'Environmental Implications' section has also been amended to 'Net Zero Carbon, Climate Change and Environmental Implications' to reflect this change and include reference to net zero carbon and climate change implications, in addition to environmental implications.

5. Progress in delivering the key actions under Objective 2:

5.1 The Council has assisted residents and businesses to reduce their carbon emissions through a range of measures in 2021 to improve the energy efficiency of existing homes in Cambridge, including:

5.2 Action 2.1 - Investing £2.5 million in energy efficiency improvements to Council homes with poor energy efficiency ratings: The Council is investing £2.5 million in energy efficiency improvements to Council homes with poor energy efficiency ratings (predominantly Energy Performance Certificate D to G rated stock) from 2020/21 to 2021/22,

with the aim of reaching a minimum EPC C (B where possible). The first phase of 62 council owned properties has been completed. External wall insulation and solar PV have been installed where possible. Additional measures such as underfloor insulation, smart thermostats and draughtproofing have been trialled as detailed below.

- 5.3 Retrofitting Council Homes: As part of the review of its own housing stock, in addition to its programme of installing external wall insulation (EWI), the Council has worked to understand how net zero carbon could be achieved in its properties. A whole house retrofit of a property that was undergoing external wall insulation was carried out which improved the Energy Performance Certificate (EPC) rating from D67 to B88. The chosen house was a typical Cambridge 1930s semi-detached property with solid walls forming the original part of the building and cavity walls for the extension at the rear. The following measures were installed or trialled at the property:
- A 2.24kW Solar PV system whilst the scaffolding was erected.
 - Different underfloor insulation options were explored. Q-Bot was trialled, which uses a robot to spray the underside of the floor with insulation and this innovative method of installation avoids lifting all ground floor floorboards.
 - The windows were not due to be replaced and so a low-cost draughtproofing system called Quattro seal, a robust liquid sealing system that deforms to any shape and style of window irrespective of fabric or size, was trialled to improve the air tightness.
 - A Switchee smart thermostat was also installed along with an Endotherm central heating additive and the old single glazed doors were replaced.

Net zero carbon Council homes study

- 5.4 In 2020, the Council procured an expert consultancy to carry out a high-level study to establish how existing Council homes could be retrofitted to meet different carbon emissions standards, including net zero carbon emissions.
- 5.5 The report focussed on 7 different property archetypes within the Council's housing stock and identified how they could be improved to

reach these standards. The study quantified the costs of reaching different standards, in terms of initial capital investment and ongoing maintenance costs for the Council, and running costs for Council tenants, and will inform the Council's future approach. The report has estimated that reaching net zero carbon in the Council's housing stock will cost over £500m, with a cost of between £56k-101k per property, depending on archetype and based on retrofitting one property at a time.

- 5.6 Action 2.2 - Building up to 1000 new homes to Passivhaus standards: The Council is currently building 500 new Council homes for rent, using £70m Government funding via the Cambridgeshire and Peterborough Devolution Deal. These homes are being built to high sustainability standards, with an average of 8 out of 10 schemes in the programme expected to attain carbon emissions standards of 35% below those required by building regulations.
- 5.7 Following the current new homes programme, the Council has an ambition to develop a further 1000 net additional council homes. Following research by Buro Happold into the implications of building the new programme to higher sustainability standards, in January 2021, the Council committed to build homes in this new '1000 homes' programme to Passivhaus standards, where technically feasible and subject to funding. The Council will target net zero carbon standards for Council homes built from 2030 onwards.
- 5.8 The first Passivhaus pilot site has been identified and planning permission gained as of June 2021 and construction is due to start in March 2022. The Council is also in discussions through Anglia Ruskin University with regards to ERDF funding to deliver a net zero carbon project pilot.
- 5.9 Action 2.3 - Promoting group-buying schemes for solar PV: The Council has worked with Cambridgeshire County Council to promote a solar PV collective purchase scheme which provides residents with solar PV and battery storage installations at a significantly reduced cost. The scheme is run as an auction, with interested residents registering with iChoosr (at no obligation) and installers then bidding to provide solar PV for the

group of interested residents. Following the first auction held in September 2020, 999 Cambridge residents registered for the scheme. 92 installations have been completed in Cambridge, with a further 7 booked in, and 105 remaining leads may result in more installations. A further round is being considered for later in 2021.

- 5.10 Action 2.4 – Commissioning a study to identify measures needed to retrofit different archetypes of private homes: It is estimated that it would cost at least of £35,000¹⁵ to fully decarbonise each home in the UK. It would therefore cost in the order of £1.75 billion to retrofit all 44,000 private properties in Cambridge to a net zero carbon standard. The Council has procured an expert consultancy to carry out a retrofit study to identify which energy efficiency and renewable energy measures would need to be installed for different property archetypes in Cambridge to reach net zero carbon emissions, and model the capital costs, maintenance costs and running costs that will be needed.
- 5.11 The consultants will also produce engaging and accessible guidance for residents on which carbon reduction measures would be most effective in their property (based on common property archetypes) and how to go about installing them.

New action: Building control retrofit advice

- 5.12 The Council has provided extra training to building control officers and a pilot will start in autumn 2021 to provide residents with retrofitting advice. This will include use of thermal imaging to educate contractors and service users of the importance of ensuring any works are installed correctly and how to best live in properties to gain the optimum use. A series of educational virtual training will also be provided to complement the offer of advice and to promote good practice. In addition, team members will shortly be undertaking Passivhaus accreditation, to assist with promoting the highest standards that can be achieved.
- 5.13 Action 2.5 - Funding to deliver retrofitting of energy efficiency measures

¹⁵ Green Alliance, 2020, Reinventing Retrofit: how to scale up home energy efficiency in the UK, page 15 https://www.green-alliance.org.uk/resources/reinventing_retrofit.pdf – the report notes that costs of the Energie Sprong whole-house retrofit approach could reduce to £35,000 per home by 2025

to homes in Cambridge: In February 2021 the Council was successful in its consortium bid with other Cambridgeshire local authorities to the Government's Green Homes Grant Local Authority Delivery (LAD) scheme LAD1b fund and was awarded just over £2m to deliver the project which currently runs until October 2021. The bid was for improvements to 278 properties, including: external wall insulation and solar PV to 66 City Council homes, energy efficiency improvements to 62 housing association homes, and external wall insulation to 150 private homes. External wall insulation has been installed in 26 social housing properties, (this is expected to be 39 by the end of September) but there have been issues with delivery to private sector housing due to issues out of the Council's control including pressures from short delivery time frame, delay in the receipt of funding, installation standards changing affecting project focus, and lack of installation capacity due to multiple schemes being delivered nationally.

- 5.14 LAD2 is being delivered by the East of England Energy Hub up until December 2021 and the Council is supporting them with engagement and delivery. The Council has recently submitted a further £5.5m bid into the Sustainable Warmth Scheme which includes LAD3 and HUG1. The Council is again adopting a Cambridgeshire local authority consortium approach to this bid which is scheduled to be implemented between January 2022 and March 2023 if the bid is successful.
- 5.15 Action 2.6 - Taking enforcement action against private landlords if their properties do not meet the national Minimum Energy Efficiency Standards: From April 2021, the national Minimum Energy Efficiency Standards (MEES) require landlords and property managers to ensure that privately rented homes reach a minimum EPC rating of E. The Council will take enforcement action against private landlords whose properties do not meet these standards. In 2020/21 officer procedures were written with reference to the regulations including template letters/notices and desktop research to scope the issue in Cambridge and set an intervention target. In 2021 / 22 the target is to intervene in relation to 150 private rented sector properties and seek to improve energy efficiency standards of these properties.

- 5.16 Action 2.7 - Developing new policies requiring high standards on carbon emissions reduction and environmental sustainability for new homes and non-residential developments as part of the new Greater Cambridge Local Plan: The Council is currently working jointly with South Cambridgeshire District Council to prepare a Greater Cambridge Local Plan, which will set policies for new development from the date of adoption to 2041. One of the overarching themes proposed for the new Local Plan is: “Climate change – how the plan should contribute to achieving net zero carbon, and the mitigation and adaptation measures that should be required through developments.”
- 5.17 As part of the evidence base for the new Local Plan, the Greater Cambridge Shared Planning Service commissioned Bioregional and Etude to carry out an innovative net zero carbon study, which is considering the planning policies and targets that would be needed to achieve net zero carbon homes and buildings. Work is currently underway to draft the preferred options for the Greater Cambridge Local Plan, which will include policies related to net zero carbon buildings. These will be informed by the net zero carbon evidence base and the constraints of the national planning policy framework. The preferred options report will be considered by Committee in Autumn 2021 ahead of public consultation.

6. Progress in delivering the key actions under Objective 3:

- 6.1 The Council has taken a number of steps so far in 2021 to improve transport infrastructure, increase the sustainability of transport, and encourage residents to shift to more sustainable modes of transport, such as bus travel and cycling. These actions include:
- 6.2 Action 3.1 - Supporting the Greater Cambridge Partnership (GCP) to deliver a range of walking, cycling and bus improvements on key routes into and across Cambridge: The Council is one of the key partners in the GCP, alongside Cambridgeshire County Council and South Cambridgeshire District Council. The GCP is delivering a comprehensive programme of sustainable transport initiatives. The

Cross City Cycling scheme has been completed, delivering improvements to 5 key cycle routes across the city (Arbury Road, Ditton Lane, Fulbourn Road, Hills Road, and links to Cambridge North Station and Cambridge Science Park). The Histon Road bus priority scheme is due to be opened in 2021 and the design for Milton Road bus priority scheme is being completed ahead of construction commencing. The GCP Executive Board has agreed to progress 12 Greenways schemes (providing radial cycling and walking routes connecting Cambridge and surrounding settlements and employment sites) and the design is underway.

- 6.3 Action 3.8 - Requiring all new taxis registered in Cambridge to be Ultra Low Emission Vehicles (ULEVs) or zero emissions vehicles from 2020, and all taxis to be ULEVs or zero emissions vehicles by 2028: Since the taxi licensing policy was implemented in April 2020, currently 42 fully electric (zero emission¹⁶), 6 Ultra Low Emission¹⁷ and 57 hybrid taxis have been licensed, out of a total of approximately 500 licenced taxi vehicles in Cambridge, and numbers of electric taxis are increasing each year.
- 6.4 Action 3.10 - Procuring a commercial partner by 2022 to deliver electric vehicle charging infrastructure in Council car parks and other Council-owned land and sites: Procurement is currently underway for this work and the contract is expected to be awarded in September/ October 2021, with the first installation to start in late 2021.
- 6.5 Action 3.11 - Working with Cambridgeshire County Council and UK Power Networks to facilitate on-street residential electric charge points where there is no scope for off-street charging: 38 charge points will be deployed in two residential areas of West Chesterton and Abbey wards where off-street parking is extremely constrained. The majority will be 7kw chargers but four faster 50 kw chargers, two in each area will also be installed. The project is on track to be completed early in 2022. Funding was secured from UKPN (UK Power Networks) and OZEV

¹⁶ Zero emission vehicles are those that emit no emissions during their operation. These include battery electric vehicles, hydrogen fuel cell vehicles, and electric vehicles

¹⁷ Plug-in hybrid vehicles or extended range electric vehicles (E-Rev) with CO₂ emissions less than 75g per km

(Office for Zero Emission Vehicles) in June 2021 and contractors have been secured. The County Council are leading the partnership with the City Council, as the deployment is predominantly on-street.

7. Progress in delivering the key actions under Objective 4:

7.1 The Council has delivered or funded a number of activities so far in 2021 to encourage and support residents and businesses to reduce their consumption of resources, reduce waste and increase recycling. These actions include:

7.2 Action 4.1 – Funding activities through the Council’s Sustainable City Grants by voluntary and community groups to reduce consumption and increase repair, re-use and recycling: The Council has agreed to fund a number of activities during 2021/22 which will encourage residents and businesses to reduce consumption and repair, re-use and recycle goods, including funding Cambridge Carbon Footprint to run the Arbury “Swap, Collect, Fix Fest”. The event will be a one-stop shop for waste reduction activities in a low-income neighbourhood and will promote swapping, repairing and recycling. Activities will include a:

- ‘Give and take’ stall (run subject to Covid risk assessment)
- Community clothes swap (run subject to Covid risk assessment)
- Repair Café
- 1-to-1 advice to help residents create zero carbon action plans

7.3 Action 4.4 - Extending trials of separate collections of food waste to more households During 2020 the Greater Cambridge Shared Waste service carried out trials of separate food waste collections to 4000 households in an area of Chesterton. These trials showed that separating food waste can help increase recycling rates (by removing food waste from residual waste collections) and reduce waste (by showing people how much food they are throwing away, how much food they could have eaten, and how much food they didn’t need to buy in the first place). The third phase of the trial is being implemented

during 2021, which will extend the service to a further 5,000 households covering an area of Trumpington.

7.4 Action 4.5 - Continue communications campaigns to raise awareness and encourage residents to recycle more: The first phase of a food waste reduction campaign including bin stickers was implemented in May 2021 to 2,000 houses and the second phase is planned for December 2021.

8. Progress in delivering the key actions under Objective 5 (food)

8.1 Action 5.1 - Continuing to work with the Cambridge Sustainable Food network towards achieving the Sustainable Food Cities Network Silver Award for Cambridge, and exploring opportunities to apply for the Gold Award: Since achieving a Bronze Award in 2016, Cambridge Sustainable Food (CSF) and its Partnership Board, which includes the Council, has been successful in attaining the Silver Award¹⁸ from Sustainable Food Places for the city in July 2021. Cambridge is one of only six cities in the country to have achieved this award, recognising the city's commitment towards positive food system change.

8.2 Glasgow Food and Climate Declaration: The Glasgow Food and Climate Declaration¹⁹ is a commitment by cities, regions and sub-national states to tackle climate change through integrated food policies and a collective call on national governments to act, ahead of the COP26 Climate Change Summit in November. Following a motion to full Council in July 2021, the Council agreed to sign up to the principles in the Glasgow Food and Climate Declaration and lobby national government to:

- address the environmental impact of food waste
- recognise the fragility of food systems, as highlighted by COVID-19 and the demand on the city's food hubs.

¹⁸ <https://cambridgesustainablefood.org/silver-award>

¹⁹ www.glasgowdeclaration.org/

- implement a food systems approach to accelerate climate action (and also to promote biodiversity and access to healthy and sustainable diets for all, among other co-benefits).

8.3 Action 5.2 - Work in partnership with local voluntary and community groups to address food poverty, including working with Cambridge Food Poverty Alliance and Cambridge Sustainable Food to develop a food re-distribution hub: During 2020/21, the Council provided a central food preparation hub and provided staff and funding to support the establishment of 8 Food Hubs around Cambridge by local community groups during the coronavirus lockdown periods to collect and distribute food donations to households experiencing food shortages. In 2020, the Food Hubs received nearly 18,000 visitors who collected over 110 tonnes of food. Volunteers from the hubs reached out to over 1,200 households and delivered over 8,000 meals. Options appraisals for a more permanent food hub have been completed in 2021 and a stakeholder group is set to launch in September to shape the venture going forward.

8.4 Action 5.6 - Maintaining the current level of occupancy rates at existing allotments and supporting take-up of new community gardens and allotments in growth sites to encourage residents to grow their own food: The Council has recently taken ownership of a new allotment site at Clay Farm and has issued 155 new tenancy agreements for plots at this location, encouraging local residents to grow their own food.

8.5 Action 58 - Working with local voluntary and community groups and other partners to promote sustainable food practices to local businesses: The Council has agreed to fund Cambridge Sustainable Food through the Sustainable City Grants to deliver a range of activities during 2021/22, including:

- working in depth with 3 food SME businesses on a new climate change module to reduce carbon emissions
- launching the Sustainable Food Business Alliance
- organising meetings to bring the food business community together to share best practice on how to reduce their climate change impacts
- organising events on themes such as food waste, packaging, energy

and sustainable sourcing.

9. Progress in delivering the key actions under Objective 6 (adaptation)

- 9.1 The Council recognises that in addition to reducing carbon emissions, it is equally important to ensure that Cambridge adapts to address the impacts of climate change, such as increases in flood events; water shortages and droughts; and increased summer temperatures and overheating. The council has commenced the following actions in 2020/21 to support Council services, residents and businesses to adapt to the impacts of climate change:
- 9.2 Action 6.5 - Exploring opportunities to manage climate risks through policies in the new Local Plan: Work is currently underway to draft the preferred options for the new Local Plan. This includes options related to responding to a changing climate, which sets out requirements to mitigate the risk of overheating in new developments, as well as options related to flood risk and sustainable drainage. The preferred options report will be considered by committee in Autumn 2021, ahead of public consultation.
- 9.3 Action 6.6 – Increasing the tree canopy cover through tree planting and protection on public and private land, and using parks, open spaces and other green infrastructure in the city to help regulate temperatures: During 2020/21 the Council planted approximately 800 trees and gave away approximately 450 trees (via the Free Trees for Babies scheme, the Neighbourhood Canopy Project and through gifting to CoFarm). On average we remove around 221 trees a year from Council land where necessary. A new tree planting scheme (approximately 400 trees) is currently out for consultation and new schemes for giving trees to others are currently underway.
- 9.4 Action 6.9 - Delivering a measurable biodiversity net gain on the City Council's estate: The Council has developed a new Biodiversity Strategy 2021-30 (to replace its existing Nature Conservation Strategy) and the draft strategy is currently under public consultation until 17

October 2021. The Strategy will focus on delivering a measurable biodiversity net gain on the Council's estate from a DEFRA metric baseline. This will be achieved through enhanced management of existing Local Nature Reserves (LNRs) and making parks and housing open spaces more hospitable to wildlife through creation of meadows, scrub and woodland. The strategy also focuses on engaging and influencing individuals, institutions and businesses to implement similar measures on their land to create a citywide network around the core LNRs.

- 9.5 Action 6.11 - Implementing projects to manage water courses and improve biodiversity, including a project to improve rare chalk stream habitats in Cambridge. With grant funding from Cambridge Water we have worked in partnership with the Wild Trout Trust, BCN Wildlife Trust, local Friends Groups and Streets & Open Spaces volunteers to implement 3 projects identified in the Greater Cambridge Chalk Stream report. In total over 450m of chalk stream habitats have been enhanced at Coldham's Brook on Stourbridge Common, Cherry Hinton Brook and Vicar's Brook at Coe Fen. Watercourse restoration works at Cherry Hinton Brook and Vicar's Brook in June 2021 included reduction of scrub to let in more light to the watercourse, bank reprofiling to improve their flow and storage capacity and introduction of gravels and dead wood features for spawning fish and invertebrates to deliver wider biodiversity benefits. A Pebble fund²⁰ bid has been submitted with Abbey People for scrub management and other enhancements along Coldham's Brook next to Barnwell West LNR.

10. Implications

a) Financial Implications

Funding for projects included in the Carbon Management Plan comes from a number of different funding sources, including the Council's Climate Change Fund and existing General Fund or Housing Revenue Account (HRA) budgets for delivering services. The Climate Change Fund was established in 2008 to fund measures that will reduce the carbon footprint of the Council's

²⁰ [PEBBLE Fund \(cambridge-water.co.uk\)](https://www.cambridge-water.co.uk/pebble-fund)

buildings, fleet and services. The Climate Change Fund has contributed a total of £1.4 million to projects delivered since 2008/09.

As noted in the new Carbon Management Plan, the schemes that the Council will need to invest in to reduce its emissions in future will potentially have a much higher capital cost, and the net savings on energy costs will not always cover the capital costs of some of the works

The Council will therefore make further allocations to the Climate Change Fund to deliver Carbon Management Plan projects through the Council's annual budget setting process. The Council will also seek Government funding for projects in the Carbon Management Plan, as opportunities arise. For example, in January 2021 the Council secured £1.7 million from the first round of the Public Sector Decarbonisation Scheme for carbon reduction measures at Parkside Pools and Abbey Pools.

The actions contained in the wider Climate Change Strategy will be funded through primarily through existing budgets for delivering key services. These fall within the General Fund or the HRA depending on the services involved.

We will also seek Government and other external funding sources for specific climate change initiatives, where this is available. For example, the installation of 20 electric charging points for taxis is being delivered with a combination of funding Government, the Greater Cambridge Partnership. In January 2021, we led a £2 million Cambridgeshire-wide bid to the Green Homes Grant Local Delivery Scheme for energy efficiency work in Council homes, housing association homes and private homes.

b) Staffing Implications

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

c) Equality and Poverty Implications

An Equalities Impact Assessment (EqIA) of the Climate Change Strategy and Carbon Management Plan has been carried out and is published on the Council's website: www.cambridge.gov.uk/equality-impact-assessments

The EqIA did not identify any negative equality impacts from actions and projects identified in the strategy.

d) Net Zero Carbon, Climate Change and Environmental Implications

The Climate Change Strategy 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 Implications

Recent projects identified in the previous Carbon Management Plan (including LED lighting installations in car parks, the Guildhall energy efficiency works and the programme of solar PV installations) have been delivered through the national REFIT 3 framework. The Council signed access agreements to allow it to make use of the RE-FIT framework specifically designed for energy performance contracting. This allowed us to access Bouygues Group PLC as a contractor to identify and deliver energy efficiency projects. The principle benefit of this arrangement is that Bouygues have guaranteed the energy savings predicted for the projects they have delivered for the Council (subject to the new equipment being managed within defined limits).

In April 2020, Cambridgeshire County Council led a consortium of local authorities including Cambridge City Council to procure a partner for future energy efficiency and renewable energy schemes. Bouygues were appointed as the contractor through this process.

f) Community Safety Implications

The Climate Change Strategy and Carbon Management Plan have minimal impact on Community Safety.

11. Consultation and communication considerations

To inform the development of the Climate Change Strategy, we carried out the following:

- 5 online workshops during November 2021, which were attended by a total of 75 residents. 3 of the workshops focused on specific themes in the strategy (housing, waste and sustainable food, and climate change adaptation) and 2 of the workshops covered the strategy as a whole. Each workshop included presentations by Council officers and University of Cambridge experts, followed by a facilitated discussion with participants.
- An online consultation survey, which was completed by 252 residents.
- 3 “Climate Change Forum” meetings between August 2020 and January 2021 with local environmental groups including Cambridge Carbon Footprint, Transition Cambridge, Cambridge Sustainable Food, Carbon Neutral Cambridge, and Friends of the Earth.
- Regular meetings with Cambridge Zero (the University of Cambridge’s new climate change initiative) and meetings other University of Cambridge and Anglia Ruskin academics with climate change expertise.
- A workshop with key businesses and institutions in Cambridge on 28 January 2021.
- Producing a net zero carbon animation, which was used to promote the workshops and the survey on the Council’s social media accounts. We also promoted the workshops and survey via all residents’ associations, members of local environmental groups, and to University of Cambridge staff and students.

The content of this report, and in particular the updated Action Plan, will be communicated to residents and businesses through media such as Cambridge Matters and made available on the council’s website.

12. Background papers

No background papers were used in the preparation of this report.

13. Appendices

- Appendix A – Climate Change Strategy – Action Plan
- Appendix B – Carbon Management Plan - 2021/22
- Appendix C – UK100 Net Zero Pledge
- Appendix D – ClimateView charts

14. Inspection of papers

To inspect the background papers or if you have a query on the report please contact David Kidston, Strategy and Partnerships Manager, tel: 01223 457043, email: david.kidston@cambridge.gov.uk

Appendix A – Climate Change Strategy – Action Plan

Ref	Action	Resources	Milestone 1	Milestone 2	Milestone 3	Completion date	Target
1.1	Deliver energy efficiency and renewable energy projects identified in the Council's Carbon Management Plan for 2021-2026 to reduce carbon emissions from corporate buildings (including swimming pools, sheltered and temporary housing, administrative buildings, car parks, community centres, the Corn Exchange and the crematorium).	Officers throughout the council. Climate Change Fund.	2021/22 Projects completed - March 2022	2022-26 projects identified, funding identified / applied for and measures installed/ implemented - March 2026		Ongoing to March	Net zero carbon emissions by 2030 for our corporate buildings
1.2	Bid for future central government funding and other green energy funding available for investments in energy efficiency and decarbonisation measures in the Council's corporate buildings	Corporate Energy Manager	Identify and prepare information in preparation for future funding rounds. March 2022	Apply for PSDS round if appropriate project. Date TBC (March 2023?)	Apply for PSDS or other funding round if appropriate March 2025	Ongoing to March 2026	TBC
1.3	Review the Council's Office Accommodation Strategy, including an assessment of whether existing office buildings should be retained or rationalised	Property Services, Estates & Facilities, Business Transformation resource required. Business case to be prepared to identify resource needs.	Prepare business case to agree approach, identify requirements post Covid/ Business Transformation programme, actions and outcomes and resource requirements. Oct 2021	Business case and resources approved and in place - April 2022	Report to Committee with recommendations - Date TBA	Jul-22	TBC

Ref	Action	Resources	Milestone 1	Milestone 2	Milestone 3	Completion date	Target
1.4	Purchase Ultra Low Emission Vehicles (ULEV) when replacing vans and trucks in the Council's fleet (where there is a suitable ULEV alternative and the infrastructure allows)	General fund BSR	Project reliant on EV charging infrastructure 2022/23	Vehicle specifications agreed with end user April 2023 and ongoing	Delivery of vehicles to spec September 2023 and ongoing	2030	4.39 ktCO2
1.5	Purchase ultra-low emission vehicles (electric or hydrogen) when replacing refuse lorries	Mainstream budget	May 2022 vehicle 2 and 3 commissioned	March 2025 vehicle 4 commissioned	March 29 vehicle 5,6,7 commissioned	2029	6 vehicles commissioned by 2029
1.6	Identify and assess the required improvements possible to remaining existing commercial properties (that will not be redeveloped as part of the commercial property redevelopment programme) to achieve net zero carbon, and obtain costs estimates for the improvement works	Property Services, Estates & Facilities	Complete assessment of all Energy Performance Certificates for commercial properties - August 2021	Action plans for all properties to be prepared to identify prioritisation and asset management decisions for costed programme through to 2030 - November 2021	Budget bids to be prepared for 2023/24 onwards for any costs not within existing allocated capital spend on commercial property - August 2022	Annually through to 2030	TBC although savings may be to tenants in occupation
1.7	Identify and assess the performance standards to achieve net zero carbon for any new commercial buildings or redevelopment of existing buildings	Existing staff resource and working with designers on a scheme by scheme basis	April 2022 – First General Fund redevelopment scheme proposal	As and when redevelopment schemes are proposed as each scheme may differ depending upon use/type		Ongoing for duration of General Fund redevelopment programme	Ongoing as schemes come forward and each scheme will be reported to Committee.
1.8	Identify a percentage of the Council's reserves to invest in innovative "green investments" to facilitate measures to offset climate change.	General Fund	MTFS 2021 - will identify prudent minimum balance of reserves and the amount of reserves required	BSR 2022	N/A	Mar-22	N/A

Ref	Action	Resources	Milestone 1	Milestone 2	Milestone 3	Completion date	Target
			to support the transformation programme. The balance would be available for investment				
1.9	Review standard tender packs to include the Councils expectations around climate change.	Climate Change Officer	Instruction to Bidders document (which forms part of the Tender Pack) - Environmental Factors section reviewed and updated - August 2021.	Updated Environmental Factors section included in Instruction to Bidders document – August 2021		August 2021 and then reviewed annually	Reduce emissions from future council contracts.
1.10	Provide written guidance for contract managers on climate change measures that could be included in contracts and include this information in procurement and contract management training for staff.	Climate Change Officer	Provision of guidance and inclusion in procurement and contract management training for staff - November 2021			November 2021 and then reviewed annually	Reduce emissions from future council contracts.
1.11	Explore the potential for a review of climate change and sustainability commitments by the Council's existing suppliers, and work with these suppliers to improve their performance.	Climate Change Officer				Starting July and working through a programme	Reduce emissions from current council contracts.
1.12	Revise and update the existing Climate Change Assessment tool to include net zero carbon considerations and use this to assess the climate change impacts	Climate Change Officer	Tool updated and communicated to staff - August 2021			Aug-21	

Ref	Action	Resources	Milestone 1	Milestone 2	Milestone 3	Completion date	Target
	of budget bids, business cases for capital projects and committee reports						

Ref	Action	Resources	Milestone 1	Milestone 2	Milestone 3	Completion date	Target
2.1	Investing £2.5 million in energy efficiency improvements to Council homes with poor energy efficiency ratings (predominantly Energy Performance Certificate D to G rated stock) from 2020/21 to 2021/22.	Energy Assessor/surveyor role and part of Corporate Energy Manager time	August 2021 Phase 1 of works completed.	March 2022 completion of project	n/a	March 2022	To reach a minimum of EPC C (B where possible) in at least 140 Council Properties that are currently an EPC D or below. Can provide ktCO ₂ on completion of post EPCs.
2.2	Building 1000 new homes to Passivhaus standards (where technically feasible and subject to funding) and targeting net zero carbon standards for Council homes built from 2030 onwards.	Housing Development Agency (HDA) project teams	June 2021- first Passivhaus pilot site with planning	Mar -22 first Passivhaus scheme start on site		2021 onwards	To deliver new housing as low carbon- at least 35% reduction on 2013 building regulations and 80% with new SAP calculations
2.3	Promoting group-buying schemes, including working with Cambridgeshire County Council to promote the Solar Together collective scheme to homeowners, which provides residents with solar PV and battery storage installations at a significantly reduced cost	Environmental Projects Team Leader	First auction held in September 2020	A further round is being considered for later in 2021.		Ongoing to March 2026	No target set as first year implemented this project, and in the background of Covid.

Ref	Action	Resources	Milestone 1	Milestone 2	Milestone 3	Completion date	Target
2.4	Commissioning a study to identify measures needed to retrofit private homes in Cambridge to net zero carbon standards and producing detailed guidance for homeowners and landlords	Allocated – Climate Change Research and Projects budget	Procurement completed and contract awarded – September 2021	Final report – December 2021	Guidance for homeowners and landlords – March 2022	March 2022	N/A
2.5	Bidding for central government funding available for retrofitting energy efficiency measures to private homes, including future rounds of the Green Homes Grant Local Authority Delivery (LAD) scheme.	Environmental Projects Team Leader & Project Officer recruited from funding.	Cambridgeshire local authority consortium £5.5m bid into the Sustainable Warmth Scheme which includes LAD3 and HUG1 - scheduled to be implemented between January 2022 and March 2023 if the bid is successful.			Annually as opportunities arise	
2.6	Targeted enforcement of Minimum Energy Efficiency Standards Regulations where appropriate (EPC F and G rated private rented housing stock)	Existing Team staff resources	2021 / 22 - 150 MEES interventions any follow up action taken in line with Regulations, officer procedure & corporate enforcement policy.			Ongoing review milestones end 2020/21	2021 / 22 - targeted intervention in relation to 150 private rented sector properties and seeking to improve energy efficiency standards of these.
2.7	Developing new policies requiring high standards on carbon	Existing Greater Cambridge	Autumn 2021 - consultation on	Summer 2022 - consultation on	Submission of Local Plan for	Autumn 2023/Spring 2024	All new homes/non-

Ref	Action	Resources	Milestone 1	Milestone 2	Milestone 3	Completion date	Target
	emissions reduction and environmental sustainability for new homes and non-residential developments as part of the new Greater Cambridge Local Plan, taking into account the outcomes of the net zero evidence base study and other evidence informing the plan, as well as the national planning policy framework	Shared Planning Service service budgets	preferred options including policies related to net zero carbon buildings	draft Greater Cambridge Local Plan	examination in Autumn 2023/Spring 2024		residential buildings to meet the net zero carbon buildings requirements set out in the new Local Plan
2.8	Building control retrofit advice	Existing Team staff resources	A pilot will start in autumn 2021 to provide residents with retrofitting advice.				

Ref	Action	Resources	Milestone 1	Milestone 2	Milestone 3	Completion date	Target
3.1	Supporting the Greater Cambridge Partnership (GCP) to deliver a range of walking, cycling and bus improvements on key routes into and across Cambridge, including: <ul style="list-style-type: none"> • The Chisholm Trail cycling route connecting Cambridge and Cambridge North Stations • 12 Greenways, providing radial cycling and walking routes connecting Cambridge and surrounding settlements and employment sites. • Bus, cycling and walking priority 	GCP Officer time, CCC support where required	Completion of initial projects, Histon Road and Chisholm Trail Phase 1 by early 2022	Approval of construction for Milton Road, Greenways and other cycling, walking and bus improvements by end of 2024	Construction of schemes ongoing to March 2026	Ongoing to March 2026	

Ref	Action	Resources	Milestone 1	Milestone 2	Milestone 3	Completion date	Target
	schemes on Histon Road and Milton Road <ul style="list-style-type: none"> Public transport corridor schemes to connect growing communities to employment hubs 						
3.2	Implementing the Local Lettings Plan framework for new Council housing developments, which will give priority to people working within an agreed geographical radius of the development. This measure is intended to help reduce commuting by car from tenants of new Council housing developments	Existing staff resources	Darwin Green Local Lettings Plan developed as a pilot – published May/June 2021	Consultation with Registered Providers (RPs) of social housing on wider framework by December 2021	Publication by March 2022	March 2022	
3.3	Building new Council housing developments in Cambridge with a target of less than one car parking space per home to encourage travel by walking, cycling or public transport, subject to individual development requirements	Existing staff resources	New sustainable housing design guide to include car parking ratios	New sustainable design guide issued		Ongoing	
3.4	Promote sustainable modes of transport through the planning system by: <ul style="list-style-type: none"> Applying policies in the current Local Plan to support housing and non-residential development which prioritises access by walking, cycling and public transport. Develop new policies related to promoting sustainable transport and ensure that the accessibility of new development sites to sustainable transport infrastructure is a key aspect in decision making in 	Existing services budgets (note that for planning applications, advice related to sustainable transport is led by Cambridgeshire County Council)	Autumn 2021 - consultation on preferred options including policies related to sustainable transport	Summer 2022 - consultation on draft Greater Cambridge Local Plan	Submission of Local Plan for examination in Autumn 2023/Spring 2024	Autumn 2023/Spring 2024	Sustainable transport policies identified in new Local Plan implemented in new developments

Ref	Action	Resources	Milestone 1	Milestone 2	Milestone 3	Completion date	Target
	preparing the Greater Cambridge Local Plan.						
3.5	Developing and undertaking a programme of activities in the city to promote walking, cycling and the use of public transport across a range of settings including schools, colleges, workplaces, open spaces and communities (through the Active Travel Officer and Active Lifestyles Team)	Active Travel Officer (new post)	Job Description agreed and evaluated	Consultation paper on changes within Streets and Open Spaces structure	Implementation of structure changes and recruitment to Active Travel Officer	November 2021	
3.6	Encouraging attendees and contractors at Council run events, including the Cambridge Folk Festival and Corn Exchange, to consider more sustainable transport options when travelling to events, and working with the County Council transport team to ensure the city evening economy is served by sufficient bus transport taking people back out to outlying towns and villages.	Existing budget and staff resources.	Oct 21 and ongoing - Devise and implement a marketing campaign within the event marketing to communicate sustainable transport options.	Oct 21 and ongoing - Establish a joint marketing and services with Stagecoach and other public transport providers i.e. Shuttlebus from the station to Big Weekend.	Increase cycle parking at Bonfire Night and Big Weekend.	Ongoing to March 2026	
3.7	Completing installation of 18 rapid and 3 fast electric charge points for taxis in Cambridge by 2021	£100k City Capital; £100k GCP capital; £426k OLEV Grant Funding	Four Sites (8 Rapids by March 2019) Completed	Remaining 13 Chargers installed by end of December 2021		December 21	
3.8	Requiring all new taxis registered in Cambridge to be Ultra Low Emission Vehicles (ULEVs) or zero emissions vehicles from 2020, and all taxis to be ULEVs or zero emissions vehicles by 2028	Early adopter fee waiver budget of £150k, all other costs within normal revenue	Policy adopted; June 2019	Policy implemented from 1st April 2020	All Licensed Taxis ULEV by 31st December 2028	2028	

Ref	Action	Resources	Milestone 1	Milestone 2	Milestone 3	Completion date	Target
3.9	Using guidance in the Sustainable Design and Construction Supplementary Planning Document to require provision of electric vehicle charging points in future new housing and non-residential developments and consider the need for new policies in the Greater Cambridge Local Plan to support the electrification of transport.	Existing staff resources from Greater Cambridge Shared Planning Service (GCSP) and Environmental Health	Autumn 2021 - consultation on preferred options including policies related to EV charge point provision	Summer 2022 - consultation on draft Greater Cambridge Local Plan		Ongoing	% of active charge points provided as part of overall parking provision per application.
3.10	Procuring a commercial partner by 2022 to deliver electric vehicle charging infrastructure in Council car parks and other Council-owned land and sites.	Net zero capex/opex for the Council solution	Procurement currently underway	Award of contract Sept/Oct 21	First Install start late 21	December 2022	
3.11	Working with Cambridgeshire County Council and UK Power Networks to facilitate on-street residential electric charge points where there is no scope for off-street charging. 3 initial pilot schemes for 'charging collectives' will be procured during 2021.	£100K City Council Capital allocation; £119k OZEV ORCS Funding; £ 1 million+ UKPN Green Recovery Fund	Funding Secured from UKPN and OZEV completed in June 2021	Procure contractor for supply, installation, running, maintenance of charge points. (BP Chargemaster Pulse awarded July 2021)	Install and deliver 38 in street charging sockets for public use by April 2022	April 2022	
3.12	Working with Cambridgeshire County Council and the CPCA on a wider electric vehicle charging strategy.					Ongoing	

Ref	Action	Resources	Milestone 1	Milestone 2	Milestone 3	Completion date	Target
3.13	Working with GCP and bus operators to explore opportunities for further investment in electric buses.	City, GCP and CPCA officer time	February 2020 – launch of electric bus trial	August 2021 – CPCA submission of bid for DfT ZEBRA funding for 30 additional electric buses	[If bid is successful] deployment of additional buses from mid-2022	Ongoing	Reduction in carbon emissions in Cambridge as a result of reduced diesel fuel consumption by buses

Ref	Action - please review wording	Resources	Milestone 1	Milestone 2	Milestone 3	Completion date	Target
4.1	Funding activities through the Council's Sustainable City Grants by voluntary and community groups to reduce consumption and increase repair, re-use and recycling	Climate change Officer - assessment of applications for funding from the Sustainable City Grant (SCG) and Grants Team officers - administration of grants process.	Applications for the 2022/23 SCG are assessed and funding agreements finalised.	Applications for the 2023/24 SCG are assessed and funding agreements finalised.	Applications for the 2024/25 SCG are assessed and funding agreements finalised.	Annually	Reduction in emissions in the City as a result of reduced energy consumption, waste or reduced transport powered by fossil fuels.
4.2	Supporting the national Refill campaign by promoting over 100 free drinking water taps in Cambridge, including a number of drinking taps and fountains provided by the Council.	Within existing staff resource and use of S106 monies (when appropriate)	Web site and Web App presence. https://www.refill.org.uk/refill-cambridge/	Additional water fountains installed.		Ongoing	

Ref	Action - please review wording	Resources	Milestone 1	Milestone 2	Milestone 3	Completion date	Target
4.3	Reducing plastics usage at Council-run events such as Cambridge Folk Festival and the Big Weekend	Within existing budgets and staff resource	Oct 21 - Require caterers to not use single use plastics or plastic condiment sachet	Dec 2021 - Devise and implement influencing campaign to influence other departments and contractors	Jun 2022 - implement analysis of each event (by section) to provide quantitative data to measure against	Ongoing	
4.4	Extending trials of separate collections of food waste to more households (evidence to date suggests this increases recycling of food waste and ultimately reduces the amount of household food waste).	Within existing budget and, in the future, central government funding	December 2020-phase 2 of trial implemented to make 4,000 HH on trial in total	December 2021 phase 3 of trail implemented to add a further 5,000 on the trail	Winter 2021_22-outcome of national waste strategy to guide future development	Mar-22	Reduction of amount of food waste in the black bin, currently 30%. To be measured by Waste analysis
4.5	Continue communications campaigns to raise awareness and encourage residents to recycle more, using communications channels such as events, social media, leaflets and residents' magazines	Within existing budget	May 2021-delivery of food waste reduction bin sticker campaign to 2,000 houses	December 2021 phase 2 of bin sticker campaign	March 2022-participation in national food waste action week	Ongoing	Delivery of at least 5,000 stickers and delivery of national campaign locally
4.6	Encouraging businesses to take-up recycling and food-waste collections provided by the Council on a commercial basis	Within existing budgets	April 2022-number of new customers of proceeding year	April 2023-number of new customers of proceeding year	April 2024-number of new customers of proceeding year	Ongoing	60 per year
4.7	Working with leading businesses and manufacturers to reduce packaging and make products more re-useable and recyclable	Within existing budgets	December 2021 - review outcome of national waste strategy and impact of packaging production			Ongoing	

Ref	Action	Resources	Milestone 1	Milestone 2	Milestone 3	Completion date	Target
5.1	Incorporating sustainable food principles in council catering and at Council-run events where possible	This is dependent of food providers at council run events that are directed by the fair terms and conditions set out in council licenses and contracts.	Contracts and licenses are continually being reviewed to incorporate sustainable food principles, where possible, within the legal frameworks that apply.			Ongoing	
5.2	Work in partnership with local voluntary and community groups to address food poverty, including working with Cambridge Food Poverty Alliance and Cambridge Sustainable Food to develop a food re-distribution hub	a) use of county council funds to support fuel/food poverty projects b) £100K capital funds allocated for re-distribution hub c) Staffing resourced through community services baseline budget	August 2021: £30K (county funding) redistributed to vol orgs for summer hols, food/fuel poverty programmes	Re-distribution hub re-locates on/before Autumn 2022		Autumn 2022	
5.3	Supporting the work of local Community Food Hubs to provide free, sustainable food to residents affected by the Covid-19 pandemic	Staffing resourced through community services baseline budget. Funding provided through Covid funding streams	Funding provided to: CECF / CSF /Foodbank to support emergency food/ pandemic recovery			2021	
5.4	Continuing to work with the Cambridge Sustainable Food network towards achieving the Sustainable Food Cities Network Silver Award for Cambridge, and	CSF has provided resources in terms of officer time to assemble and submit applications.	The Silver Award was assigned by Sustainable Food Places to Cambridge City on 2 July. Work	Prepare a submission of interest for Gold Award for the city by the end of September 2021	Final application for Gold Award submitted by end of April 2022	Decision made in May 2022 and announcement provided at SFP annual	Gold Award achieved in June 2022

Ref	Action	Resources	Milestone 1	Milestone 2	Milestone 3	Completion date	Target
	exploring opportunities to apply for the Gold Award	Partners to contribute actions.	has begun to prepare an outline submission for Gold Award			conference in June 2022	
5.5	Encouraging residents to choose sustainable, local food and to reduce meat consumption through corporate communications messages	Existing staff resource	Communications prepared to coincide with COP26 in November 2021	Communications prepared to coincide with upcoming national awareness days		Ongoing to March 2026	Ongoing
5.6	Maintaining the current level of occupancy rates at existing allotments and supporting take-up of new community gardens and allotments in growth sites to encourage residents to grow their own food	Existing staff resource	Regular inspections for non-cultivation, followed by enforcement leading to termination so plots can be allocated to those on the waiting lists	Allocation of new and existing plots as soon as they are made available		Ongoing	Ongoing
5.7	Using guidance in the Sustainable Design and Construction Supplementary Planning Document (SPD) to encourage developers to incorporate food growing in new housing and non-residential development (e.g. providing fruit trees, roof top gardens and growing space as part of landscape design)	Existing service budgets				Ongoing until new Greater Cambridge Local Plan comes into force	
5.8	Working with local voluntary and community groups and other partners to promote sustainable	Use of Sustainable City Grant to fund activities	Projects funded for delivery in 2022/23	Projects funded for delivery in 2023/24	Projects funded for delivery in 2024/25	Ongoing to March 2026	Ongoing (annually through Sustainable City Grants)

Ref	Action	Resources	Milestone 1	Milestone 2	Milestone 3	Completion date	Target
	food practices to local businesses						

Ref	Action	Resources	Milestone 1	Milestone 2	Milestone 3	Completion date	Target
6.1	Developing an Environmental Management System (EMS) for Environmental Services activity and seek ISO40001 accreditation. This will include a focus on reducing water consumption, potentially through reduce plant watering and sourcing water through rainwater harvesting systems for plant watering and public toilets.	Existing staff resource	Audit and draft an EMS for S&OS.	Implement and carry out first assessment of EMS effectiveness	Modify EMA and seek achievement if accreditation to ISO 14001	March 2022	
6.2	Working with Cambridge Water to promote water saving messages to residents and businesses	Existing staff resource	Communications prepared to coincide with upcoming national awareness days			Ongoing to March 2026	Water consumption of homes and businesses reduced
6.3	Promoting the use of council pools/ paddling pools/ splash pads in the event of hosepipe bans in conjunction with the local water company, to encourage residents to utilise council facilities instead of using water to fill up garden paddling pools etc.	Social media and web-based messaging.	This action will only be implemented if there is a hose pipe ban and will come into actioning then	N/A	N/A	N/A	Ongoing
6.4	Requiring new housing to meet the water efficiency standards in the current Local Plan (maximum	Existing service budgets	Autumn 2021 - consultation on preferred	Summer 2022 - consultation on draft		Ongoing until adoption of the Greater	All housing developments to

Ref	Action	Resources	Milestone 1	Milestone 2	Milestone 3	Completion date	Target
	of 110 litres/person/day) and explore where higher standards may be needed in the new Local Plan.		options including options related to enhanced levels of water efficiency	Greater Cambridge Local Plan		Cambridge Local Plan (submission date for examination Autumn 2023/ Spring 2024)	achieve 110 litres/person/day
6.5	Exploring opportunities to manage climate risks through policies in the new Local Plan, subject to the outcomes of the current national consultation on planning reforms. This could include: water efficiency policies to help reduce water consumption and manage water resources; designing buildings that are simple to keep cool; and Sustainable Drainage Systems (SUDs) measures to help reduce flood risk.	Existing service budgets	Autumn 2021 - consultation on preferred options including options related to designing for a changing climate and flood risk and sustainable drainage	Summer 2022 - consultation on draft Greater Cambridge Local Plan	Submission of Local Plan for examination in autumn 2023/ spring 2024	Autumn 2023/ spring 2024	
6.6	Increasing the tree canopy cover through tree planting and protection on public and private land, and using parks, open spaces and other green infrastructure in the city to help regulate temperatures.	Existing service budgets and grant funding (e.g. Interreg funding for the Nature Smart Cities across the 2 Sea project and the Cambridge canopy project pilot)	Complete our commitments to the Nature Smart Cities across the 2 Seas project. 2022	New tree strategy. 2026	2% increase in tree canopy cover. 2050	2050	330.3 tCO ₂
6.7	Providing advice to residents on how to reduce health risks during heatwaves	Existing staff resources	Communications prepared to coincide with summer / usual			Ongoing to March 2026	Increased awareness of health risks during heatwaves

Ref	Action	Resources	Milestone 1	Milestone 2	Milestone 3	Completion date	Target
			heatwave periods				
6.8	Working with Cambridgeshire County Council and other partners in the Cambridgeshire & Peterborough Flood and Water Management Group (CP FloW) to manage climate change-related flood risks.	Existing staff resources	Continuing to work with the partnership including inputting into the local flood risk management strategy action plan - October 2021 deadline for review of the most recent draft	Local flood risk management strategy action plan approval due- December 2021		Ongoing	
6.9	Delivering a measurable biodiversity net gain on the City Council's estate through enhanced management of existing Local Nature Reserves and making parks and housing open spaces more hospitable to wildlife through creation of meadows, scrub and woodland.	Adoption and implementation of new Biodiversity Strategy and Action Plan- existing revenue budgets, S106 and EIP projects.	30/11/21 Complete consultation on draft Biodiversity Strategy, amend and create Action Plan	January 2022: Present final Biodiversity Strategy and Action Plan for adoption at Environment & Community Scrutiny Committee		Ongoing	Measurable biodiversity net gain on the City Council's estate
6.10	Engaging and influencing individuals, institutions and businesses to take steps to make their land more hospitable and permeable to wildlife and help create a citywide network of sites.	Adoption and implementation of new Biodiversity Strategy and Action Plan- existing revenue budgets, S106 and EIP projects.	30/11/21 Complete Consultation on draft Biodiversity Strategy, amend and create Action Plan	January 2022 - Present final Biodiversity Strategy and Action Plan for adoption at Environment & Community Scrutiny Committee		Ongoing	Ongoing

Ref	Action	Resources	Milestone 1	Milestone 2	Milestone 3	Completion date	Target
6.11	Implementing projects to manage water courses and improve biodiversity, including a project to improve rare chalk stream habitats in Cambridge. Initial work will focus on Cherry Hinton Brook, Vicars Brook at Coe Fen, and Coldham's Brook on Stourbridge Common.	June 2021 Cherry Hinton Brook and Vicars Brook works complete	Secure Pebble Funding - October 2021	December 2021 - Implement tree and scrub works along Coldham's Brook	March 2022 - Implement in channel Coldham's Brook enhancements approx 200m	Ongoing	Ongoing
6.12	Move to cease the use of herbicide on grass road verges and trial using a new grass cutting and collecting machine, which will reduce cuttings left on verges, reduce the fertility of the soil for wildlife and support biodiversity.	New resource secured on a temporary contract	Scope the use of a Trial following the Council Motion on the 22nd July 2021.	Report to Committee in late 2021 or early 2022	Trial underway in agreed locations Spring 2022	March 2022	

Appendix B – Carbon Management Plan - 2021/22 projects

2021-22 Projects	Cost	Climate Change Fund contribution	Contribution from other sources	Estimated annual energy savings (kWh)	Estimated annual carbon savings (tCO2e)	Estimated annual financial savings	Financial payback	LATEST UPDATE ON PROJECT AS OF AUGUST 2021
LEISURE SITES								
Parkside Pool: Installation of 2 ASHP, additional solar PV, LED lighting, BEMS and pipework insulation.	£988,946	-	£988,946 PSDS application	1,739,437	336	£27,689	35.7	In Progress: Planning permission has been approved. Due to be completed before March 2022.
Parkside Pool: Replacement and reduction of boiler provision	£227,370	-	£227,370 Capital	175,674	32.3	£4,392	51.8	In Progress: Due for completion before March 2022 – linked to above project.
Abbey Leisure Complex: Installation of a 300kW ASHP, BEMS, LED lighting and pipework insulation.	£717,601	-	£717,601 PSDS application	872,384	184	£1,046	686	In Progress: Changed from GSHP to an ASHP. Due to be completed before March 2022.
CORN EXCHANGE								
Corn Exchange: New heating boilers, HVAC and insulation of pipework, BEMS and LED lighting.	£119,208	-	£119,208 Capital	208,534	43	£7,074	26.4	In Progress: ESPC & JCT Contracts to be signed imminently with Bouygues. Due for completion in October 2021.
CREMATORIUM								
Crematorium: HVAC improvements, BEMS, LED lighting, insulation.	Estimated: £39,902	-	£39,902	141,932	28	£4,327	9.2	Further Investigation Required: Ongoing.

2021-22 Projects	Cost	Climate Change Fund contribution	Contribution from other sources	Estimated annual energy savings (kWh)	Estimated annual carbon savings (tCO2e)	Estimated annual financial savings	Financial payback	LATEST UPDATE ON PROJECT AS OF AUGUST 2021
STREETLIGHTING								
Streetlighting: Replacement of remaining HRA street lamp columns and lanterns with LED units. Estimated 63% reduction on the baseline.	£1,013,205	-	£1,013,205	97,925	27.2	TBC	TBC	Delayed: There have been delays due to data issues. Surveys have been completed and contracts and the business case are currently being finalised to enable works with Bouygues to start. Project will need to be moved to 2022/23.
Stanton House: Replacement of existing heating system (gas boilers supplying 4 properties) with separate communal and flat heating systems.	Estimated: £850,000.	-	Estimated: £850,000.	TBC	TBC	TBC	TBC	Delayed: To be postponed until 2022/23 or 2023/24. Project is on the planned works programme but due to works not being able to be carried out in sheltered housing due to Covid and delays caused by exploring options including how the building could achieve net zero carbon, this project will need to be moved to a subsequent year.
LANDLORD LIGHTING IN AUTHORITY OWNED HOUSING								

2021-22 Projects	Cost	Climate Change Fund contribution	Contribution from other sources	Estimated annual energy savings (kWh)	Estimated annual carbon savings (tCO2e)	Estimated annual financial savings	Financial payback	LATEST UPDATE ON PROJECT AS OF AUGUST 2021
Sackville Close: Replacement of communal lights with LED lamps and appropriate controls.	£56,000	-	TBC	TBC	TBC	TBC	TBC	In progress: Works underway, completion expected in September 2021
FLEET								
Shared Waste Service: Purchase of 5 further electric Refuse Collection Vehicles (RCV) for use across the service.	TBC	-	TBC	TBC	TBC	TBC	TBC	In Progress: Orders have been placed for a further 2 electric RCVs which are due for delivery between Dec 2021 and the end of March 2022. The remaining 3 vehicles have not been ordered yet.
CAR PARKS								
Grand Arcade Annex: Air Handling Unit replacement	£38,564		£38,564	TBC	TBC	TBC		In progress: New fan motors have been installed and a building energy management system (BEMS) will be installed in 2021. The new fans are more efficient and a new the BEMS (Building Energy Management System) will improve control and therefore the efficiency of the operation of the fans.

Appendix C - UK100 Net Zero Pledge

As local leaders across the UK, we recognise our responsibility to tackle the climate emergency and take bold action towards Net Zero.

We will continue to lead the UK's response to climate change, acting sooner than the government's goal by making substantial progress within the next decade to deliver Net Zero. We will use our experience and achievements to advocate to the UK government in order to accelerate the delivery of ambitious local climate action. With greater powers and funding, we would go further.

We commit to do everything within our power and influence to rapidly reduce our greenhouse gas emissions and work with our residents and businesses to bring our wider communities' emissions in line with Net Zero as soon as possible.

We pledge to understand our impact on climate change, prioritise where action needs to be taken and monitor progress towards our goals. We will reduce our emissions at source and limit the use of carbon offsets as part of the global effort to avoid the worst impacts of climate change.

We are closer to the people who live and work in our communities, so we have a better understanding of their needs. This means we can collaborate with them to build consensus for the solutions we need to transition to a Net Zero society that delivers multiple benefits and is fair, just and works for everyone.

Appendix D – ClimateView charts

Chart 1 – Heat pumps – zero carbon by 2050 transition



Chart 2 - Heat pumps – 2030 zero carbon transition

