



Report to Cabinet

Date:	10 October 2021
Title:	Climate Change and Air Quality Strategy
Relevant councillor(s):	Councillor Peter Strachan, Cabinet Member for Environment & Climate Change
Author and/or contact officer:	Edward Barlow edward.barlow@buckinghamshire.gov.uk
Ward(s) affected:	(All Wards);
Recommendations:	1) To NOTE the outcomes of the recent engagement activity. 2) To NOTE the ongoing work to address climate change and the reduction in carbon emissions in 2020/21 3) To ADOPT the Climate Change and Air Quality Strategy 4) To AMEND the MTFP to reflect the revenue and capital budgets for the Strategy 5) To ENSURE that Cabinet is provided with an annual update on the implementation of the Strategy

1. Executive summary

1.1 The Climate Change and Air Quality Strategy was developed following the motion at Council on 15 July 2020 regarding climate change and subsequently approved at Cabinet in February 2021 for further engagement.

1.2 The strategy sets our approach to addressing climate change and air quality across Buckinghamshire, including targets for emissions reduction from the Council's direct operations.

1.3 Further engagement activity has been undertaken since Cabinet last considered this Strategy, the feedback from which was supportive. As a consequence, no amendments have been made and it is recommended that Cabinet adopt the Strategy.

2. Content of report

2.1 The Strategic Approach

2.2 Our overall strategy for addressing climate change and air quality is based upon our ability to control or influence different sources of emissions. The degree of control or influence we have is reflected in the nature of the actions for an emission source. We have articulated this varying influence across four levels / approaches:

- a) **Direct Control:** Where we have direct control, we will take action to reduce emissions, for example by installing renewable energy systems (such as solar panels) on our buildings.
- b) **Financial / Regulatory Role:** Where we have financial or regulatory influence, we will look to use these abilities to reduce emissions, for example using our local planning powers to reduce emissions from new developments.
- c) **Enabling Change:** Where we can enable others to reduce emissions, we will support that change, for example by providing electric vehicle charging infrastructure.
- d) **Inform and Influence:** In other circumstances, we shall seek to inform and influence those who do have control over emissions, for example by raising public awareness of climate change and air quality issues.

2.3 The strategy proposes 60 actions across a range of emission sources. These actions are arranged in sections aligned with the degree of control model:

- a) The Council's Emissions – covering how we will reduce our direct emissions.
- b) Suppliers and Partners – covering how we will work with Community Boards, schools, suppliers and partner organisations to reduce emissions.
- c) County-wide – covering how we'll work to reduce emissions from non-council sources of emissions across Buckinghamshire, such as a from transportation and new developments.

2.4 Carbon Emission Targets



- 2.5 The strategy provides milestone targets to be achieved by 2030 and 2040 on the way to reaching net zero no later than 2050 for our direct emissions. These emissions targets have been calculated using data from the carbon audit and are presented both as reductions compared to 1990, which is the year which the UK’s national reduction targets relate to, as well compared to the 2018/19 financial year used for our recent Carbon Audit.
- 2.6 Table 1 below shows our 2030 and 2040 emission reduction targets, both when compared to the 2018/19 data from the Carbon Audit and compared to our estimated emissions for 1990. As we do not hold emissions data for 1990, to allow this comparison to be made we have estimated emissions for this year based on data from 2009¹.

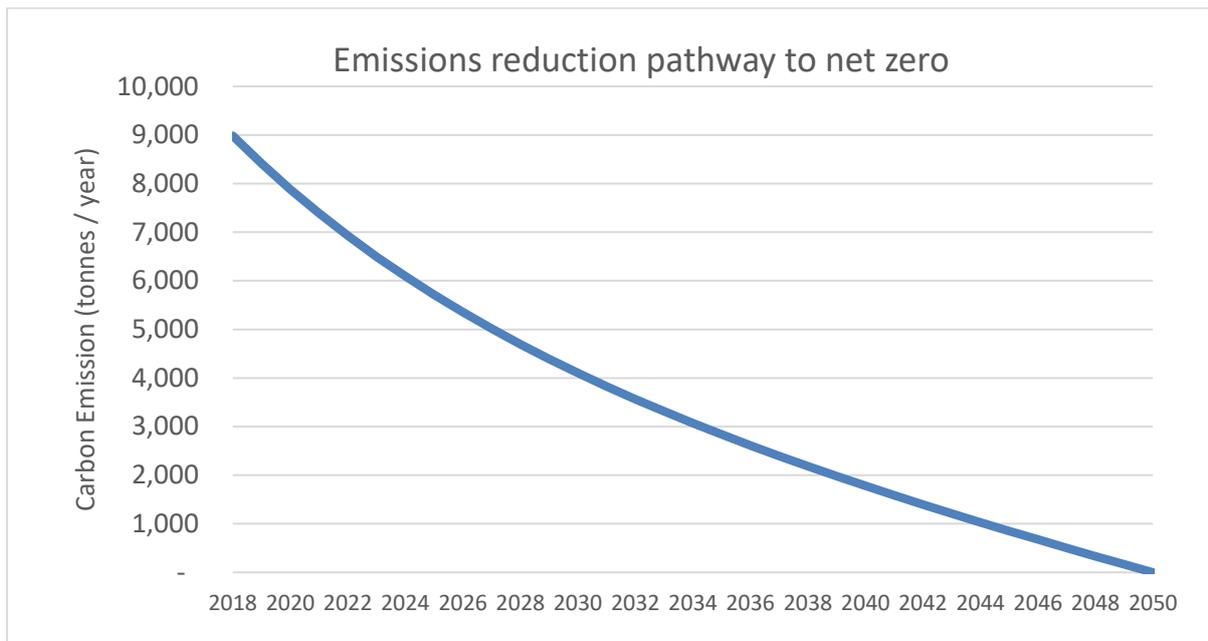
Table 1 – Buckinghamshire Council – Direct Carbon Emission Reduction Targets

	Compared to 1990 Estimate	Compared to 2018/19 Carbon Audit
2030	At least 75%	At least 50%
2040	At least 90%	At least 80%
2050	100% (net zero)	100% (net zero)

- 2.7 The 2030 and 2040 targets are part of our overall pathway to net zero carbon emissions as shown in Figure 1 below. This pathway requires a faster rate of emission reductions in earlier years and a declining rate towards 2050. With the implementation of the measures identified in the strategy and highlighted below, we are confident that we can achieve these ambitious emission reduction levels.

¹ We have assumed that energy usage (i.e. in kilowatt hours) was the same in 1990 as 2009, updating electricity emission with the correct emissions factor for 1990.

Figure 1 - Carbon emissions reduction pathway to net zero



2.8 In addition to setting interim targets for 2030 and 2040 we will monitor our emissions in line with the approach taken by the UK government, by adopting multi-year Carbon Budgets. The first Carbon Budget period covers 2020 to 2027, with subsequent periods of 5 years – this will bring us into line the UK’s national carbon budget, for which the next period runs 2023 to 2027. Each multi-year budget period provides a target emissions level to be met over that period.

2.9 Range of Actions

2.10 The strategy contains 60 actions which will support emission reductions which are arranged as per the degree of control we have (i.e. The Council’s Emissions, Suppliers and Partners and County Wide Emissions). Other actions also cover monitoring and reporting of progress against these targets and the approach to reviewing and updating the strategy as necessary.

2.11 Actions which address the Council’s emissions include:

- a) Energy efficiency improvements for our buildings and more renewable generation. This is will include improving the efficiency of lighting by upgrading to LED systems, improving the efficiency of heating systems and installing further solar photovoltaic (PV) systems on suitable buildings
- b) Continuation of the street lighting upgrades to highly efficient LED equivalents, which can reduce energy consumption by over 70%

- c) Reducing emissions from our fleet including by moving toward electric vehicle equivalents
 - d) Installing solar car ports at suitable car park locations, to produce renewable energy
 - e) Undertaking a programme of large-scale tree planting, which will absorb carbon and help us to achieve net-zero carbon emissions whilst also providing other environmental benefits such as supporting biodiversity and reducing flood risk.
- 2.12 Actions in the strategy for non-council emissions include improving infrastructure for active transport and electric vehicles, encouraging environmentally sustainable behaviour and working with communities (including Community Boards), partners and suppliers to reduce emission across Buckinghamshire.
- 2.13 This is a sample of the actions contained in the strategy, the full version of which accompanies this report.

3. Progress Update and Current Actions

3.1 Recent and Ongoing Actions

- 3.2 Due to the urgency to address climate change, there has been a wide range of work undertaken in advance of the Strategy being adopted to address climate change. The below paragraphs summarise some of the work underway.

Nature Based Approaches

- 3.3 The Council has secured over £200k from the Local Authority Treescapes Fund (LAFT) to support tree planting in non-forest locations as part of a bid with 5 partner organisations.
- 3.4 We are working with several community groups which are interested in planting trees in road verges. This is a complex undertaking and we're looking at how we can support and guide this activity. In many locations it is not safe to plant trees next to roads and where it can be safe, often utilities in the ground make it unsuitable. The planting and maintenance activity also require highway risks to be managed. Having the right processes to manage such interest is important both for safety but also to help ensure the right tree is selected and thrives where it is planted.
- 3.5 We are supporting the Queens Green Canopy initiative – a project marking Her Majesty's Platinum Jubilee in 2022 – and we have been in touch with every school and care home in Buckinghamshire to offer them a free tree to plant in their grounds. The first trees will reach sites this November.

- 3.6 In terms of our own largescale tree planting programme, we have designs drawn up for the first phase of sites and we are currently out to tender for the contract to plant the first site of those sites.

Building Emissions

- 3.7 We are currently reviewing options for the Council's new electricity and gas supply contracts which will come into effect from 1 October 2022. As part of this we are looking in detail at securing renewable electricity supplies for the Council as well as the 190 schools, academies and parish/town councils who also access this contract.
- 3.8 The Council is working on three consecutive rounds of funding to deliver reductions in domestic emissions through the Green Homes Grants Local Authority Delivery (GHG LAD) programmes; so far over £3m of funding has been secured in our first two rounds.
- 3.9 We have commissioned the first detailed decarbonisation plans for our operational buildings, which will set out the range of measures required to move away from gas based heating systems. In addition to proposing zero carbon ready systems, these will consider what other measures can be implemented to reduce the overall energy demand of the buildings.

Transport Emissions

- 3.10 We have continued to increase the number of electric vehicles charging point which the council provides, with an additional 8 new charging bays installed in Waterside North Car Park in Aylesbury in July. In total we have increased parking through last year's OZEV bid by providing an additional 32 charging points in the County. We are currently working on the tender to get a provider on board as part of the tendering process for this year's bid to the Office for Zero Emission Vehicles (OZEV).
- 3.11 We are developing an Electric Vehicle Strategy and the draft will be available in November and we intend to undertake engagement with members and key stakeholder on the strategy prior to Christmas. We are going out to public consultation in the new year with adoption expected early in the new financial year.
- 3.12 The Council, in partnership with group of local businesses and organisations, will host a 'Regional Green Zone' event associated with the upcoming UN 'COP 26' Climate Change Conference, in November. The event, titled *Green Wheels in Motion*, will be held on 10th November, and will showcase a range of innovative technologies and initiatives being developed and/or deployed in Buckinghamshire to decarbonise transport. This will be live-streamed online so that anyone can attend virtually.
- 3.13 **Carbon Emissions Update**
- 3.14 Table 2 below shows the Council's carbon emissions for the financial year 2020-21. Compared to the 1990 baseline this represents a 74% reduction in emissions and

compared to the 2018/19 carbon audit this was a 40% reduction. It is important to note that this period includes the time when there were a range of restrictions in place on day-to-day life due to the COVID-19 pandemic. As such, this includes time where buildings were wholly or partially closed, and staff travel patterns constrained which have reduced emissions.

- 3.15 This reduction in emissions is therefore welcome but we expect that the 2021/22 year will see a rebound in carbon emissions as some of reasons for these reductions are removed. However, we also anticipate that some will not return to pre-COVID-19 levels, such as staff business travel.

Table 2 – Buckinghamshire Council carbon emissions

	2020/21 (tCO2e)	% of Emissions
Gas – Buildings	1,274	24%
Electricity – Buildings	1,312	24%
Electricity – Street Lighting	1,991	37%
Fleet	546	10%
Staff Business Mileage	262	5%
Total	5,385	100%
Baseline Reductions		2020/21 % Change
1990 Baseline Estimate	20,550	-74%
2018/19 Carbon Audit	8,985	-40%

- 3.16 To align with the national reporting approach, the Strategy includes the use of multi-year carbon budget periods – the first budget period covering 2020/21 to 2026/27. Table 3 below shows the 2020/21 carbon emissions against the indicative allocation for the same year; this year was 32% below the allocation.

Table 3 - Carbon Budget

Carbon Budget Indicative Allocation 2020/21	2020/21 Actuals	% Difference
7,895	5,385	-32%

4. Other options considered

- 4.1 We have considered a range of options for reducing emissions in arriving at the proposed actions. This has considered the source of the emission (e.g. street lighting or buildings) and the technologies and approaches available to reduce emissions from this source.
- 4.2 Other options considered for reducing our emissions include the use of carbon offsets credits and the purchasing of renewable (green) energy. Both these options would allow the Council to report lower net carbon emissions, however both are also associated with some uncertainty regarding their effectiveness in reducing carbon emissions.
- 4.3 The strategy proposes to review these options to determine the additional carbon benefits which may be achieved through their use, so that a view on their future role in reaching our reduction targets can be taken.

5. Legal and financial implications

- 5.1 There is no legal requirement for the Council to adopt a strategy addressing climate change and air quality, or to set itself emissions reduction targets. The strategy has been developed in recognition of the importance of addressing climate change and air quality, and the role the Council can have in leading local action on these issues.
- 5.2 **Investment in carbon emission reductions**
- 5.3 We have modelled the impact of a range of carbons reduction measures on our current emissions to identify how we can reduce our emissions to net-zero by 2050. This work has also projected the scale of investment required to achieve these along with the proposed funding sources. It is important to note that these figures are estimated at this time and that detailed business cases will be developed to determine the final costs and benefits of each measure ahead of individual projects proceeding.
- 5.4 In total, the estimated investment to deliver the Climate Change Strategy is £9.68m, of which £4.58m will be funded from the Council's £5m Climate Change Fund, £2.35m we are expecting to secure from Government grants , and £3.10m will be funded via external and internal loans arrangements. The street lighting programme exists within the existing Capital Programme and the remaining items will be added to the Revenue and Capital MTFP, profiled over the next 4 years (solar car ports, building measures and fleet to the Capital Programme; tree Planting into the Revenue budget).

Table 4 – Financial summary of measures to reduce the Council’s net carbon emissions

	Energy saving revolving fund (loan)	Climate change fund (£5m)	Grants	Total value
Building measures	£0.70m	-	£0.35m	£1.05m
Solar car ports	£0.60m	£0.34m	-	£0.94m
Street lighting	£1.80m	-	-	£1.80m
Fleet	-	£0.60m	£0.20m	£0.80m
Tree planting	-	£2.50m	£1.80m	£4.30m
Total	£3.10m	£3.44m	£2.35m	£8.89m
Tree planting – revenue costs		£0.79m		£0.79m
Energy saving revolving fund – allocation from Climate change fund		£0.35m		-
Totals		£4.58m		£9.68m

5.5 Energy Saving Revolving Fund (Loan) – this funding mechanism replaces the existing Salix Recycling Fund, which is part funded and governed by Salix Finance, which provides interest free loans for energy saving measures. The eligibility criteria for the Salix Recycling Fund are changing from April 2022, making some measures ineligible, such as street lighting upgrades. The replacement Energy Saving Revolving Fund of £1.74m is sourced in part from the Council’s share of the existing Salix Recycling Fund, and in part from the Council’s earmarked reserves. The loans work on the principle that capital investment is repaid over up to 10 years by the revenue savings on energy costs. This is a well-established mechanism which has a good track record of delivery via the previous Salix scheme.

5.6 Grants Funding - Numerous Government grants are available to support the cost of new electric vehicles and to support the delivery of tree planting, as well as newer grants focused on reducing emissions from heating buildings. These grants include the England Woodland Creation Officer (EWCO) offered by the Forestry Commission, the Public Sector Decarbonisation Scheme (PSDS) offered by the Department for Business, Energy and Industrial Strategy (BEIS) and the Plug in Vehicle Grant (PIVG) scheme for electric vehicles from OZEV. The funding streams we will be bidding for are all active schemes, and we have already instigated bidding processes for these.

Some of the grants will be spent directly by the Council; others will be delivered by partner organisations for which the council will act as Accountable Body. Each grant will have its own T&Cs, and will have s.151 officer and Cabinet Member oversight.

- 5.7 The costs set out in the table above are estimates, and will be kept under review as projects develop and are implemented.
- 5.8 It should be noted that the above spending proposals only represent a part of the Council's spending on climate change. Many departments address climate change and air quality through their existing work.

6. Corporate implications

- 6.1 Addressing climate change is a key area for action in our Corporate Plan, supporting the priority for improving our environment.
- 6.2 Key corporate implications are related to the investment areas identified for emissions reduction. These include our properties, both buildings where energy efficiency improvements would be made and land holdings for the tree planting programme. Our vehicle fleet, street lighting and car parks (in relation to solar car port potential) are also areas where measures are proposed but where we will need to ensure the operational requirements of these assets is sustained or improved.
- 6.3 The departments who manage these assets have been involved in the development of this strategy and will be key as we move the outlined programme of measures into specific projects for delivery. This will ensure that reducing our carbon emissions is achieved in a way which compliments the delivery of other Council services.

7. Communication, engagement & further work

- 7.1 The Strategy was developed following a public survey in late 2020 attracting over 1400 responses. The draft was then subject to a process of engagement with Community Boards, attended by residents, representatives of Parish and Town councils as well as members of environmental interest groups. The activity and outcomes of which are summarised in Appendix 3 to this report.
- 7.2 The feedback received from the engagement has been overwhelmingly positive and supportive of our proposed approach.
 - a) Widespread support for the use of 'nature based' approaches to mitigating and adopting to climate change, such as through the planting of trees (both as new woodland, as small areas, and as individual trees) as well as hedgerows and the re-wilding of verges.
 - b) Desire to see further expansion of electric vehicle charging infrastructure in Buckinghamshire, to support the uptake of electric vehicles.

- c) Support for reducing emissions from housing growth, such as through higher energy efficiency standard or moving to zero carbon heating.

8. Next steps and review

- 8.1 The implementation of many of the actions in the strategy is already underway and the Council will continue to progress this work.
- 8.2 The Strategy will be reviewed within each Carbon Budget period, the first running until 2027, or earlier if considered necessary. At this time, no specific date has been set for the first review.

9. Background papers

- 9.1 Appendix 1: Climate Change and Air Quality Strategy
- 9.2 Appendix 2: Climate Change and Air Quality Strategy – Executive Summary
- 9.3 Appendix 3: Summary of Targeted Engagement and Survey Activity

10. Your questions and views (for key decisions)

- 10.1 If you have any questions about the matters contained in this report please get in touch with the author of this report. If you have any views that you would like the cabinet member to consider please inform the democratic services team. This can be done by telephone 01296 382343 or email democracy@buckinghamshire.gov.uk.