



Climate Change & Air Quality Strategy

Update to Transport, Environment & Climate Change Select
Committee

11 March 2021



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Strategic Approach

- Central to the Strategy is recognising the different roles the Council can play in addressing climate change. These roles are principally driven by our relationship to the emissions source
 - **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.
 - **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.
 - **Enabling Change:** Where we can enable others to reduce emissions, we will support that change, for example by providing electric vehicle charging infrastructure.
 - **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.

Actions Addressing the Council's Emissions

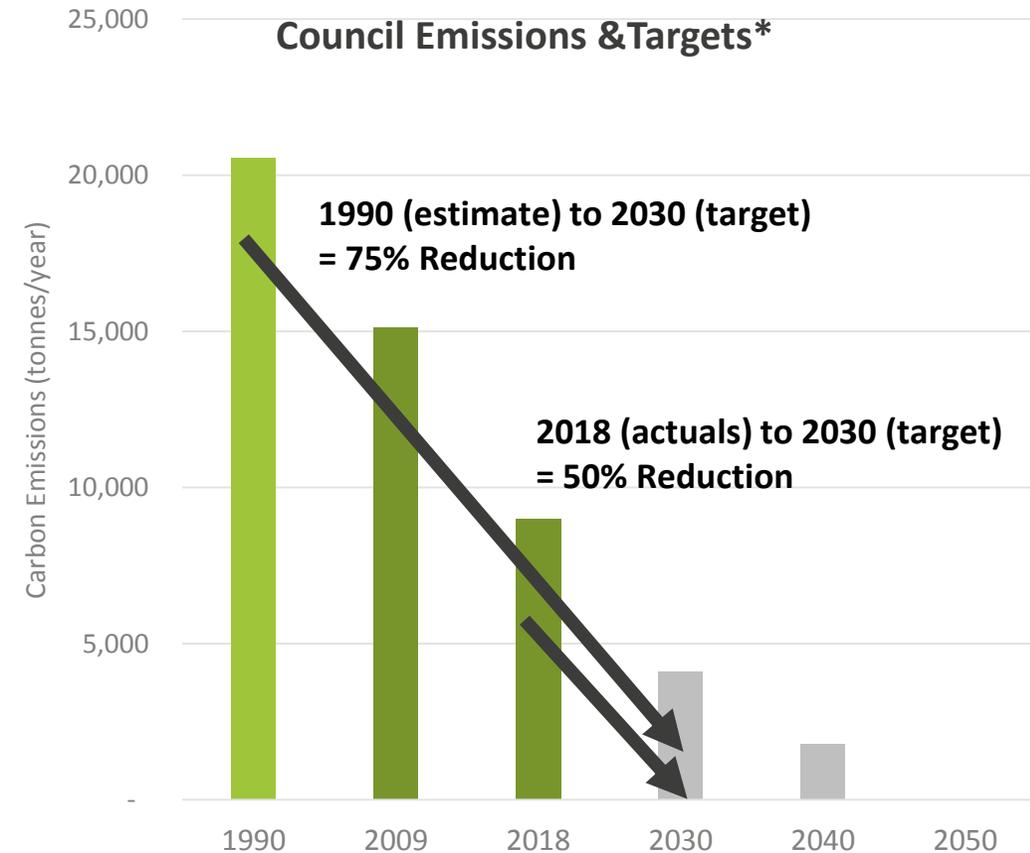
- Actions to address the Council's emissions focus on our key emission sources – buildings, street lighting and fleet.
- Example actions include:
 - Identify and implement renewable energy and energy efficiency measures across the operational estate, in line with the accommodation strategy and repair and renewal cycles.
 - Implement a large scale tree planting programme across the estate.
 - Review the council's fleet and develop proposals to reduce emissions from its operation.
 - Explore carbon offsetting fund and low carbon energy generation investment options.
 - Determine the most practicable means of assessing the Council's Scope 3 emissions.

Actions Addressing County Wide Emissions

- Actions to address non-council emissions are included under sections addressing *Suppliers and Partners* and *County-wide* emissions. Sub-sections of these include:
 - Transportation; Buildings & Development; Environment, Land and Water; and Health and Communications.
- Examples of actions in these sections include:
 - Help communities identify, develop, and secure funding for projects addressing climate change and/or air quality.
 - Improve infrastructure for active travel (such as walking and cycling) and electric vehicles.
 - Continued engagement with central government on air quality and greenhouse gas emissions issues.
 - Use opportunities coming out of changes to national planning policy to enhance environmentally sustainable aspects of developments.

Comparing Council & UK Carbon Targets

- The UK's national targets are based on the calendar year 1990.
- Buckinghamshire Council undertook a carbon audit covering the 2018-19 financial year (the most recent at the time of commissioning). The audit was able to identify data as far back as 2009 but not earlier.
- The Council and UK targets cannot be directly compared if the two different base years are used.
- We have therefore estimated 1990 emissions (based on the current council structure) to make these comparable, using the assumptions that:
 - Electricity usage was the same in 1990 as in 2009 – emissions are recalculated to reflect the emissions from electricity at the time
 - The scope and usage of all other fuels (e.g. gas/petrol) were the same.
- This provides comparable reduction targets from 1990 to 2030:
 - Buckinghamshire Council at least a 75% reduction
 - UK National Target 68% reduction
- The UK Government has not set a reduction target for 2040 emissions at this time – our target is at least 90% compared to 1990 estimates.
- For transparency, in the Strategy and the summary documents, reduction levels from both the 1990 estimate and 2018-19 audit year are provided.



* 1990 data is an estimate; 2009 and 2018 data are actuals; 2030, 2040 and 2050 targets

Tree Planting

- Carbon absorbed by trees can be reported as a negative figure and reduce our net carbon emissions.
- The 10 year programme for 543,000 trees requires ~200+ hectares of land, depending on planting density; 1 hectare may sequestered 300-400 tonnes of CO₂ after 30 years (i.e. in total, not annually).
- A total of 60,000+ tonnes of CO₂ could be absorbed over the first 40 years of the planting programme (i.e. 30 years after the last tree is planted in 10 years time)
- However – the actual amount of carbon absorbed may vary for a range of factors affecting what is planted.
 - In particular, Woodland Creation Plans will need to balance outcomes depending on the sites conditions – this could mean particular outcomes are prioritised at individual sites, be that carbon absorption, biodiversity gains, flood alleviation or amenity access for the public.
- We have assumed completion of the tree planting programme within 10 years, using the smaller land requirement and lower carbon absorption rates (to provide a conservative view of carbon absorption).
 - Our modelling has the proposed programme absorbing ~1,500 tonnes / year by 2050 – this has been confirmed as a suitable estimate with the Forestry Commission.

Reducing our Carbon Emissions

- Reaching 'net zero' is achieved mainly through reductions in our 'gross emissions'
- Using 'negative' emissions (from tree planting programme) to reduce the remaining emission to net-zero
- The modelled reductions take net emissions in 2050 to just under 300 tonnes/year – with the long range forecasts used and assumptions made, this is within the margin of error.
- The model currently assumes no use of carbon offsetting or renewable energy tariffs which could be used in 2050 (or earlier) to reduce net emissions.



Outline Capital Programme

- An outline programme of measures has been developed which will reduce emissions from across the council's activities
- The measures have been costed and the reductions achieved through these are used in the model to achieve the reductions in gross emissions shown on the previous slides.
- As an outline programme, pre-detailed business case development, we expect the precise costs and carbon savings to vary as these projects are developed.

	Salix (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	£3.79m	£2.00m	£8.89m
Tree planting – revenue costs		£0.79m		£0.79m
Climate change fund		£4.58m		£9.68m

Targeted Engagement Update

- Engagement with Community Boards is ongoing at the time – we hope to attend the majority of Boards (or their relevant sub-group) before the pre-election period (purdah) starts on 22 March.
- Engagement with schools is being handled sensitively, acknowledging the pressures schools are currently under to return pupils on 8th March. As a result, it is expected that this engagement will take place after the elections

Appendix 1: Salix Funding Summary

- Salix offers interest free loans for use on energy efficiency improvements in buildings and for street lighting (i.e. fixed assets only – vehicles not eligible)
- Council also has a £1.8m ‘Recycling Fund’ which we fund energy efficiency projects from – most recently this has been on streetlighting upgrades
- Key criteria – 10 year financial payback for funding, cost above this met by other capital
 - £100k scheme providing annual savings of £10k could be 100% Salix funded (@10 year payback)
 - £150k scheme providing annual savings of £10k could be 66% Salix funded (@15 year payback) with the extra £50k from other sources (e.g. internal capital / external grants)
- Energy savings repay the loan – no revenue benefit until the loan is repaid

