



**ENVIRONMENT AND CLIMATE CHANGE OVERVIEW AND SCRUTINY
COMMITTEE: 12 MARCH 2025**

CARBON EMISSIONS IN COUNTY COUNCIL BUILDINGS

REPORT OF THE DIRECTOR OF CORPORATE RESOURCES

Purpose of report

1. The purpose of this report is to provide an update to the Committee on the Council's progress toward net zero carbon emissions from its corporate properties.

Policy Framework and Previous Decisions

2. In May 2019 the Council declared a 'Climate Emergency' and set a 'Net Zero Carbon' target for Council operations to be achieved by 2030.
3. In 2021 the Strategic Property Energy Strategy was revised. This Strategy is a sub strategy of the Council's Environment Strategy which was approved by Full Council in July 2020.
4. In December 2022, the County Council adopted the 2030 Net Zero Council Action Plan.
5. Since these commitments were made, the Council has been subjected to an increasingly constrained financial position with a significant deficit forecast. In February 2024, in light of this and the estimated increased resources required to reach net zero, the Cabinet resolved to extend the net zero targets to 2035 for Council operations.
6. A report was taken to this Committee on 22nd January 2025 which presented revised versions of the 2035 and 2050 Net Zero Action Plans. The action plans were then subsequently agreed by the Cabinet on 7th February 2025.

Background

7. The Council has a strong history of reducing carbon emissions across all of its operations. Since the 2008-09 baseline year the Council's emissions have reduced by over 74% whilst the 2023-24 Environmental Performance Report states the Council's current net greenhouse gas emissions are 9,282 tCO_{2e}, a fall of 2.7% compared to 2022-23.

8. Following the completion of the £3.6m Public Sector Decarbonisation Scheme (PSDS) funded project, in 2023/24 direct emissions from buildings saw the largest reduction from all County Council sources at 11.7%.
9. The PSDS scheme extended the biomass heat network at County Hall, along with the installation of air source heat pumps in the cabins at Beaumanor Hall and additional solar photovoltaic (PV) panels across the estate.
10. Whilst the majority of the 23/24 decrease was due to reduced gas use in corporate buildings, attributed in part to warmer weather and the increased use of the biomass boiler at County Hall, emissions from buildings remains the largest source of carbon emissions accounting for approximately 36% of the Council's carbon emissions in 2023/24. The remaining emissions are split between fleet - 29%, street lighting - 21% and business travel - 14%.
11. In addition to this upgrades to the solar PV array at County Hall completed in June 2023 led to a 38% increase in renewable generation at County Hall compared to the previous 12 months.

Progress to date

12. Following the successful submission to Phase 4 of the Low Carbon Skills Fund, in June 2023 the Council was awarded £191,000 to develop a Heat Decarbonisation plan for all the gas heated properties in the Council's estate. This plan was completed in March 2024.
13. The Heat Decarbonisation Plan (HDP) outlines how to reduce carbon emissions from heating Council buildings with a strong focus on fabric improvements and installation of air source heat pumps. The study also recommends projects to reduce electricity or increase renewable generation.
14. The table below outlines the key findings at a portfolio level. On their own the pay back periods do not make sense financially and would need grants or technology improvements to achieve.

Recommended solutions	Energy Bill Savings 2035 to 2050 (£)	Average Annual Energy Bill Savings (£ per Year)	Carbon Savings 2035 to 2050 (TCo2e)	Portfolio Capital Cost (£) ¹
Fabric Only improvements (Reduce energy demand)	£3,057,690	£203,846	7,137	£4,481,840
Fabric & Services (reduce energy demand & replace fossil fuels)	£1,554,443	£103,630	16,673	£12,001,990

¹ Indicative costs include the construction costs such as enabling works and installation. It doesn't include for the preliminaries, overheads/profits, professional fees or contingencies. Approximately another 20% on top.

Fabric & Services & PV (energy demand & replace fossil fuels & increase renewable generation)	£3,267,414	£217,827	16,943	£12,370,150
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15. To build on the outcome of the Heat Decarbonisation Plan, in April 2024 an application was submitted for Phase 5 of the Low Carbon Skills Fund. The funding application totalled £334,500 for investment grade audits at 28 buildings. However, this bid was unsuccessful.
16. Feedback from Salix, the funding provider, has confirmed our application would have met the minimum quality threshold and therefore would have received funding. However, applications were assessed by Salix in a random order and as the random allocation position our application was assigned sat outside the funding available it was unfortunately unsuccessful.
17. In November 2024 a funding application was submitted to the Phase 4 of the Public Sector Decarbonisation Scheme. This application was for £115,000 towards the cost of installing air source heat pumps and solar PV at four Family Hub buildings. A funding decision is not expected until May 2025. This project is expected to save approximately 14 tonnes of CO₂/year.
18. Performance of the biomass boiler has been more consistent this winter as its operation has improved. This not only reduces carbon emissions but increased the income received from the Renewable Heat Incentive by approximately 50%.
19. Most recently a desktop solar PV review of all Council properties has been carried out by the Energy Team. This has identified a pipeline of properties for further rooftop solar installations.

Looking forward to 2025/26

20. Following the desktop solar review, work is underway to explore the feasibility and viability of each site identified and then implement further rooftop solar PV installations across the estate.
21. Site visits to the Council's electricity heated properties to identify opportunities to save energy and carbon emissions are also a priority.
22. Further engagement with National Grid will be undertaken to identify areas for air source heat pump installations and understand areas of network constraints.
23. Revisiting the business case for a solar car port at Snibston Country Park along with assessing procurement options and planning considerations will be undertaken.
24. Financial business cases for sites with the largest carbon savings and sites with reasonable payback periods will be developed and external funding opportunities for sites that meet funding criteria e.g. sites with end-of-life boilers will continue to be maximised.

25. As there is a shift from gas to electric heating in the Council' properties and the fleet transitions to electric vehicles, it is forecast that there will be an increase in electricity usage, making current energy targets unattainable. For this reason, the targets in the energy strategy will be updated accordingly.
26. Work is also underway to assess and understand the Councils options for carbon offsetting, as for some properties this is likely to be a more viable option than fabric improvements.

Resource Implications

27. Delivery of all projects will be dependent on the approval of appropriate business cases and staff resources to enable them to be delivered. However, it is not anticipated that there will be any resource implications arising from this report.
28. Funding has been allocated through the Medium Term Financial Strategy to support projects arising from the Heat Decarbonisation Plan. The Energy Team will also continue to seek all possible external funding opportunities.

Conclusions

29. Members are asked to note the report and to make any comments on the report or the continued work to reduce carbon emission from County Council buildings in support of the Council's net zero carbon target.

Background papers

30. Environment Strategy 2018 – 2030
<https://www.leicestershire.gov.uk/sites/default/files/field/pdf/2018/7/19/LCC-Environment-Strategy-2018-2030-June-18.pdf>
31. Environmental Performance and Progress Update Report 2023-2024
<https://www.leicestershire.gov.uk/sites/default/files/2025-01/Environmental-performance-and-progress-report-2023-2024.pdf>
32. Net Zero Council Action Plan – page 209 Appendix B -
<https://democracy.leics.gov.uk/documents/g7906/Public%20reports%20pack%20Wednesday%2022-Jan-2025%2014.00%20Environment%20and%20Climate%20Change%20Overview%20and%20Scrut.pdf?T=10>
33. Environment and Climate Change Scrutiny Report from 22nd January 2025 -
<https://democracy.leics.gov.uk/documents/s187772/Final%20Revised%20Environment%20Strategy%20and%20Net%20Zero%20Action%20Plans%20E%20Scrutiny%20220125%20-%20Copy.pdf>

Circulation under the Local Issues Alert Procedure

34. None.

Equality Implications

35. There are no equality implications arising from this report. Although any future change to the Council's policies, procedures, functions and services because of the updated Energy Strategy targets or associated action plans will be the subject of an Equality Impact Assessment as appropriate.

Human Rights Implications

36. There are no human rights implications arising from this report.

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