



**ENVIRONMENT AND CLIMATE CHANGE OVERVIEW AND
SCRUTINY COMMITTEE – 19 JANUARY 2023**

GREENHOUSE GAS EMISSIONS REPORT 2021-2022

REPORT OF THE DIRECTOR OF ENVIRONMENT AND TRANSPORT

Purpose of the Report

1. This report provides an update on progress against the net zero carbon emissions target for Leicestershire County Council in 2021-22 and provides commentary of the reasons for change and the positive action the Council has been taking to reduce its operational emissions. This report forms part of the Council's Carbon Reduction Programme.

Policy Framework and Previous Decisions

2. The updates in this report reflect progress against the Council's 2030 net zero carbon commitment for its own operations as part of the Environment Strategy 2018-2030.
3. The 2030 Net Zero Council Action Plan outlines the Council's approach to delivering net zero for its own operations and was approved by the County Council on 7 December 2022.

Background

4. The County Council declared a climate emergency in May 2019 with unanimous cross-party support. The declaration committed the Council to achieving net zero carbon emissions for its own operations by 2030, and to working with others and lobbying the Government to support delivery of this commitment to limit global warming to less than 1.5°C, in line with the Paris Agreement.
5. A review of the Environment Strategy 2018-2030 was carried out to embed the climate emergency commitments and to take account of the new Government policies, changes in legislation and new information/data that had become available. The revised Environment Strategy 2018-2030 was approved by County Council on 8 July 2020. The revised strategy was later followed by the commitment to work with others across Leicestershire to become a net zero county by 2045 or before.

6. Following recommendations by the UK Government, the Council publishes an annual report on its greenhouse gas (GHG) emissions. This report focusses on the Council's own operational emissions for the 2021-22 reporting period and the Council's 2030 net zero ambition, which includes emissions from the Council buildings, fleet vehicles, streetlighting and traffic signals, business travel, water and waste. A copy of that report for 2021-22 has been appended to this report.
7. The Council has followed the Government's Environmental Reporting Guidelines, published by BEIS and DEFRA (2019), alongside international best practice guidance from the Greenhouse Gas Protocol.

Greenhouse Gas Emissions Update – Annual Report 2021-22

8. The headline figures show that the Council's total net greenhouse gas emissions (CO₂e) in 2021-22 were 71.7% lower than the baseline year, at 10,127 tCO₂e, a 7.4% increase compared to 2020-21.
9. The rise in Council emissions was expected following the return of many Council services and operations post-Covid-19 pandemic, particularly with fleet and business travel emissions. Despite the increase, emissions remain 13% lower than pre-Covid-19 pandemic (2019-20) (see figure 1). Emissions in 2021-22 were only 1,900 tCO₂e above the 2025 interim target of a 77% emissions reduction compared to 2008-09.

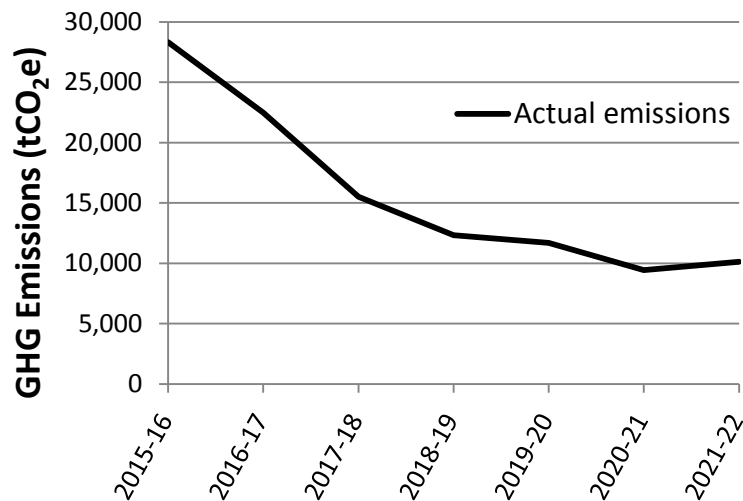


Figure 1. Council Measured Greenhouse Gas Emissions 2015-16 to 2021-22.

10. Emissions have risen from most sources except for building, streetlighting and traffic signal electricity use and fugitive emissions. Most significant increases in emissions have come from business travel, fleet and building heating. Decarbonisation of the national grid has contributed the greatest electricity emissions reductions.
11. The GHG report notes the potential risk of further bounce back in the Council's emissions in 2022-23 due to the continued return of some Council operations to

near the pre-pandemic levels – though completed and pipeline carbon reduction projects will significantly suppress this in future years.

Emissions Trends by Source

12. Emissions from gas and other fuel use in buildings increased by 10.5% compared to 2020-21 levels. The main cause of this was due to an increase in gas heating as a result of the biomass boiler being offline during October 2021 to January 2022, for significant upgrade and repair. In addition, many energy management site visits had been paused during the Covid-19 pandemic and some Covid-19 measures remained in place within buildings to keep building users safe. Whilst total building heating emissions increased, gas oil, kerosene and wood chip emissions all reduced compared to 2020-21 by a combined 8%.
13. Fugitive emissions reduced slightly by 4% (2 tCO₂e) compared to 2020-21. These emissions are calculated from information the Council maintains on refrigeration and air conditioning equipment to ensure compliance with F-gas regulations. The data experiences large annual variations due to the varying nature of leaks in systems and subsequent maintenance to top up F-gases between years.
14. Council fleet emissions increased by 10.7% compared to 2020-21. This increase can mainly be attributed to the return of many fleet services and operations post-Covid-19 pandemic. All areas of the Council fleet experienced increase in fleet emissions, with the exception for waste sites, which saw a reduction of 7% compared to 2020-21. Diesel fuel use remains the greatest source of Council fleet emissions (88.5%), followed by gas oil use (11%) and petrol/distance claims making up the remaining 0.5%.
15. Electricity consumption emissions in Council operated buildings fell by 3.3% compared to 2020-21. All of this reduction can be attributed to the national impact of greening of the electricity grid. The full benefit of greening of the grid was suppressed by a 6% rise in electricity use within Council buildings, which can be linked to the return to Council offices and services. Towards the end of 2021-22, the Council's continued programme of energy efficiency and renewable energy investments across the property estate would have started to counteract some of the rise in building electricity consumption.
16. Greenhouse gas emissions from Council streetlighting and traffic signals continue to reduce, as emissions fell by a further 8% compared to 2020-21. This can be attributed to decarbonisation of the national grid, slightly suppressed by a 1% rise in electricity use by streetlighting assets. The increase in electricity use can be associated with an increase in the number of streetlights across the county, alongside the impact of different weather/lighting between years. Towards the end of 2021-22, further energy saving measures were completed to trim the operational hours and dim appropriate streetlighting assets, benefits of which will be fully realised next financial year.
17. Council business travel emissions increased by 67% due to 1.5 million more business miles being claimed by staff in 2021-22 compared to 2020-21. Most of

this increase can be attributed to the return of Council services and operations post-Covid-19 pandemic, including the need to travel for business purposes. A small proportion (5.5%) of the rise in business mileage emissions can be linked to a delay in 2020-21 claims, due to the Council switching to Oracle Fusion software. Business mileage emissions remain significantly lower (29%) than pre-Covid-19 pandemic, with many Council staff utilising smarter working practises, such as online and hybrid meetings, flexible working, and home working.

18. Water emissions increased by 96.9% compared to 2020-21 and can be attributed mainly to a change in supplier and use of estimated meter readings, alongside the return of Council services and operations, including the use of Council buildings and facilities.
19. Council emissions from operational waste increased by 103% (3 tCO₂e) since 2020-21 and can be associated with the return of Council services and operations, including the use of Council buildings and facilities.

Renewable Energy: Exports, Avoidance and Green Tariff

20. The Council is estimated to have exported 115,492 kWh of electricity to the grid, accounting for 24.5 tCO₂e saving in emissions (0.2% of the Council's gross emissions). Compared to 2020-21, exported solar PV netted off 14% less GHG emissions, this can be attributed to a number of factors including, the reduction in carbon intensity of the national grid, the number of annual sunshine hours, solar panel degradation/maintenance and incomplete solar generation readings between financial years.
21. Across the Council's corporate buildings, 10.1% of energy used by the Council is from on-site renewables and avoided 353 tCO₂e of emissions in 2021-22 (equivalent to 3.5% of the Council's net emissions), compared to if gas and grid electricity were consumed. In 2021-22, Council biomass use was at its lowest level in the last 5-year period, as a result of Public Sector Decarbonisation Scheme upgrades to extend the biomass network and install a thermal store. Biomass heating output is expected to increase significantly in 2022-23.
22. In recognition of the Council's positive step in having a green energy tariff and supporting national decarbonisation of the electricity grid by increasing demand for low-carbon energy, the GHG report considers the Council's emissions following a market-based approach to reporting emissions. This directly reflects the emissions associated with the electricity it purchases for its operations. Following this approach, the Council's 2021-22 electricity emissions (3,795 tCO₂e) are considered zero emission due to the electricity being produced by renewable sources. Total net market-based emissions for the Council in 2021-22 were 6,357 tCO₂e (demonstrating an 82.2% reduction compared to 2008-09 baseline).

Background papers

Environment Strategy 2018 – 2030:

<https://www.leicestershire.gov.uk/sites/default/files/field/pdf/2020/7/13/Environment-Strategy-2018-2030-delivering-a-better-future.pdf>

15 May 2019 – County Council - Leicestershire County Council Climate Emergency Declaration: <https://politics.leics.gov.uk/mgAi.aspx?ID=59683>

2030 Net Zero Council Action Plan: <https://www.leicestershire.gov.uk/environment-and-planning/net-zero>

Circulation under Local Issues Alert Procedure

None.

Equalities Implications

23. There are no specific equalities implications to note as part of this greenhouse gas report.

Human Rights Implications

24. There are no specific human rights implications to note as part of this greenhouse gas report.

Resource Implications

25. The Director of Law and Governance and Director of Corporate Resources have been consulted on the content of this report.

26. There are no other resource implications to note as part of this greenhouse gas report.

Appendix

Greenhouse Gas Emissions Report 2021-22, Part of the Leicestershire County Council Carbon Reduction Programme

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