



**ENVIRONMENT AND CLIMATE CHANGE OVERVIEW AND  
SCRUTINY COMMITTEE – 26 JANUARY 2022**

**GREENHOUSE GAS EMISSIONS REPORT 2020-2021**

**REPORT OF THE DIRECTOR OF ENVIRONMENT & TRANSPORT**

**Purpose of the Report**

1. This report provides an update on progress against the net zero emissions target for Leicestershire County Council in 2020-21 and commentary of the reasons for change and 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.

**Background**

3. The County Council declared a climate emergency in May 2019 with unanimous cross-party support. The declaration committed the Council to achieving net zero emissions for its operations by 2030 and to working with others and lobbying the Government to support delivery of this commitment and to the limiting of global warming to less than 1.5°C, in line with the Paris Agreement.
4. A review of the Environment Strategy 2018-2030 was carried out to embed the climate emergency commitments and to take account of 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.
5. 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 2020-21 reporting period and the delivery against the Council's target to achieve net zero by 2030. The scope of the report includes emissions from the Council's buildings, fleet vehicles,

streetlighting and traffic signals, business travel, water and waste. A copy of this report for 2020-21 is included in the Appendix.

6. The Authority 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 2020/21**

7. The headline figures show that the Council's total net greenhouse gas emissions in 2020-21 of 9,434 tCO<sub>2</sub>e were 73.6% lower than the 2008-09 baseline year, and 19.4% less than in 2019-20. This level of reduction places the Council 5,843 tCO<sub>2</sub>e ahead of the target emissions for 2020-21 to reach the 2030 net zero target. It should be noted that a considerable amount of reduction in 2020-21 can be attributed to the impact of Covid-19 on Council operations and resultant changes to ways of working.
8. Emissions have fallen from most sources except for buildings gas and fugitive emissions<sup>1</sup>. The most significant reductions in emissions have come from business travel, streetlighting and traffic signals, building electricity and fleet vehicles. Most of the reduction seen during 2020-21 can be attributed to the impact of Covid-19 on Council operations from the two lockdowns, the reduction in face to face meetings and service delivery, the shift to home working, alongside the continued decarbonisation of the national grid, and actions to reduce carbon emissions across the Council.
9. The GHG report notes the potential risk of bounce back in the Council's emissions in 2021-22 due to the return of some Council operations to near pre-pandemic levels – this is being assessed, alongside the carbon impact of Council employees working from home, as part of the Ways of Working programme and projects will be developed to maximise the benefits and minimise the impact of 'bounce back'.

### **Emissions Trends by Source**

10. Emissions from gas and other fuel use in buildings increased by 2.5% compared to 2019-20 levels. The main cause of this was due to Covid-19 regulations within buildings to keep building users safe, such as increased ventilation requiring more heating to maintain internal temperatures and social distancing. Whilst total building heating emissions increased, LPG, oil, kerosine and wood chip emissions all reduced compared to 2019-20 by a combined 36%.
11. Fugitive emissions increased by 265% (33 tCO<sub>2</sub>e) compared to 2019-20. These emissions are calculated from information the Council maintains on refrigeration and air conditioning equipment to ensure compliance with

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<sup>1</sup> Fugitive emissions are from gasses used in refrigeration and air conditioning, as a result of leakage and service of equipment over their operational life.

fluorinated-gas regulations. The data experiences large annual variations due to maintenance regimes and subsequent top ups of F-gases between years. Despite the increase from the previous year, 2020-21 fugitive emissions remain below the average for the last 11-year period.

12. The Council's fleet emissions reduced by 15.4% compared to 2019-20, halting the increase in fleet emissions seen over the previous two financial years. This reduction can mainly be attributed to the impacts of Covid-19 on Council operations. During 2020-21 the Council hired more vehicles to ensure social distancing, resulting in additional diesel fuel usage in Highways Operations but this was more than offset by a 12% reduction in gas oil emissions and the delay of resurfacing works during the year, alongside reductions in Passenger Fleet and Operational Property and Waste Management Delivery fleet vehicles. Diesel fuel use remains the greatest source of the Council's fleet emissions (86%), followed by gas oil use (13%).
13. Electricity consumption emissions in Council operated buildings fell by 22.5% compared to 2019-20. Most of this reduction (67%) can be attributed to the impact of Covid-19 lockdowns and a significant shift to home working for Council employees, meaning less electricity was used during the year. The Council's continued programme of energy efficiency and renewable energy investments across the property estate also contributed to this reduction. The remaining 33% of the reduction seen within building electricity can be identified as the national impact of greening the electricity grid.
14. Greenhouse gas emissions from Council streetlighting and traffic signals continue to improve in performance, as emissions fell by a further 14.8% compared to 2019-20. This is mainly due the decarbonisation of the national grid (54%) but also because of energy saving measures the Council has introduced, such as further 'trimming and dimming' of the streetlighting system to reduce electricity consumption.
15. Preliminary analysis of available data<sup>2</sup> shows the Council's business travel emissions reduced by 57% as a result of 3.1 million less business miles claimed by staff in 2020-21 compared to 2019-20. Most of this reduction can be attributed to the impact of Covid-19 restrictions and a significant shift to working from home and remote meetings, reducing the ability but also the need to travel for business. Alongside the carbon emissions saving, this had a significant financial saving to the Council.
16. Emissions for water and waste have been included within the Council's GHG report for the first time in 2020-21. This follows best practice guidance from the Greenhouse Gas Protocol Standard and enables monitoring of additional emissions sources where the Council has a high level of control and influence. Though not previously included, water and waste emissions have been calculated in previous years, allowing for change since 2019-20 to be identified:

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<sup>2</sup> Business mileage claims for Q4 2020-21 are incomplete due to the Council's shift to the new Oracle Fusion system, where claims have been made but data reports are not yet available.

- a) Water emissions reduced by 33.5% compared to 2019-20 and can be attributed to the impact of Covid-19 on Council operations and the shift to home working;
- b) Authority emissions from Council operational waste reduced by 61.7% compared to 2019-20 and can be attributed to the impact of Covid-19 on Council operations and the shift to home working.

#### Renewable Energy: Exports, Avoidance and Green Tariff

- 17. The Council is estimated to have exported 122,364 kWh of electricity to the national grid from solar panels on Council properties, accounting for 28.5 tCO<sub>2</sub>e saving in emissions. Compared to 2019-20, exported solar generated electricity netted off 13% 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.
- 18. Across the Council's corporate buildings, 14.3% of energy used by the Council is from on-site renewables and avoided 476 tCO<sub>2</sub>e of emissions in 2020-21 (equivalent to 5% of Council's net emissions), compared to if gas and grid electricity were consumed.
- 19. In recognition of the Council's positive step of having a green energy tariff and supporting national decarbonisation of the electricity grid by increasing demand for low-carbon energy, the GHG report now also considers the Council's emissions following a market-based approach to reporting emissions. This directly reflects the emissions associated with the electricity the Authority purchases for its operations. This approach means emissions from the Council's electricity consumption are considered to be zero emission due to the electricity being produced by renewable sources. Total net market-based emissions for the Council in 2020-21 were 5,418 tCO<sub>2</sub>e (demonstrating an 84.9% reduction compared to 2008-09 baseline).

#### Resource Implications

- 20. The Director of Law and Governance and Director of Corporate Resources have been consulted on the content of this report.
- 21. There are no other resource implications to note as part of this greenhouse gas report.

#### Background papers

[Environment Strategy 2018 – 2030: delivering a better future](#)  
[Leicestershire County Council Climate Emergency Declaration](#)  
[Leicestershire County Council's Strategic Outcomes Framework and Plans 2018-22](#)

#### Circulation under Local Issues Alert Procedure

None.

### **Equalities and Human Rights Implications**

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

### **Appendix**

Greenhouse Gas Emissions Report 2020-21, Part of the Leicestershire County Council Carbon Reduction Programme

### **Officers to Contact**

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