

# **Greenhouse Gas Emissions Report 2023-24**

Leicestershire County Council  
Carbon Reduction Programme

**Authors:**

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**Reviewers: Jenny Allen**

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## Introduction

Leicestershire County Council ('the Council') is committed to measuring and reporting its environmental performance in order to better understand its impacts and to monitor progress towards the targets in its [2018-2030 Environment Strategy](#).

The 2023-24 Greenhouse Gas Report forms part of the Council's Carbon Reduction Programme. The Council is committed to tackling climate change and lowering carbon emissions. Recognising challenges posed by the current financial climate, the Council made the decision in February 2024 to extend its net zero targets. This means the Council are now targeted on becoming a net zero council by 2035; and working with Leicestershire residents and organisations to become a net zero county by 2050 or before, in line with the national target.

This report focusses on the Council's own operational greenhouse gas (GHG) emissions for the 2023-24 reporting period and the Council's 2035 net zero ambition, which includes emissions from council buildings, fleet vehicles, streetlighting and traffic signals, business travel, water and waste. The full scope of emissions included in this report are provided in Appendix 1.

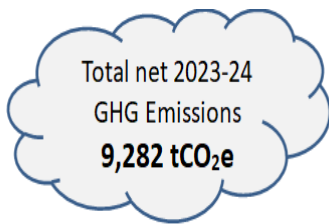
The Council has followed the [Government's Environmental Reporting Guidelines](#), published by BEIS and DEFRA (2019), alongside international best practice guidance from the [Greenhouse Gas Protocol](#).

In accordance with Government recommendations, this report is published on the Council's website.

<sup>1</sup> **Net zero** refers to the point when greenhouse gas emissions being emitted into the atmosphere are balanced with their removal, meaning there is no overall addition to atmospheric levels.

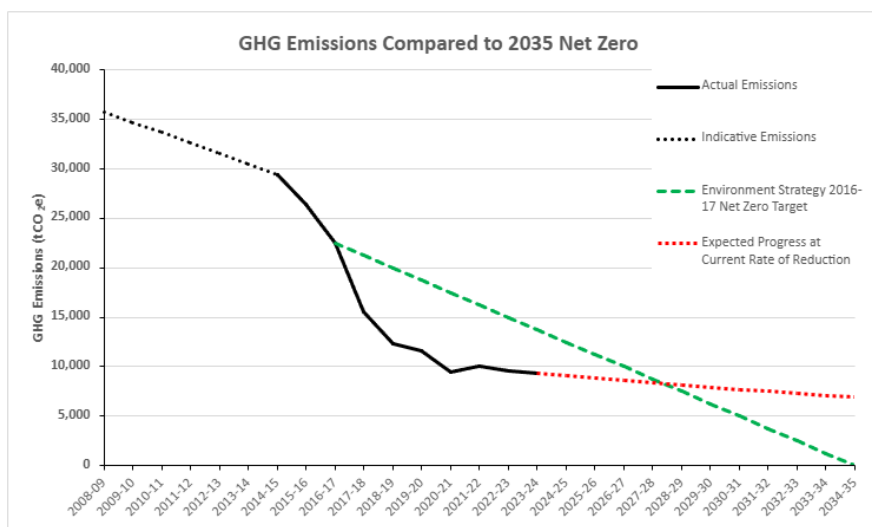
<sup>2</sup> A **climate emergency** is a situation in which urgent action is required to reduce or halt climate change and avoid potentially irreversible environmental damage resulting from it.

## 2. Headline Figures

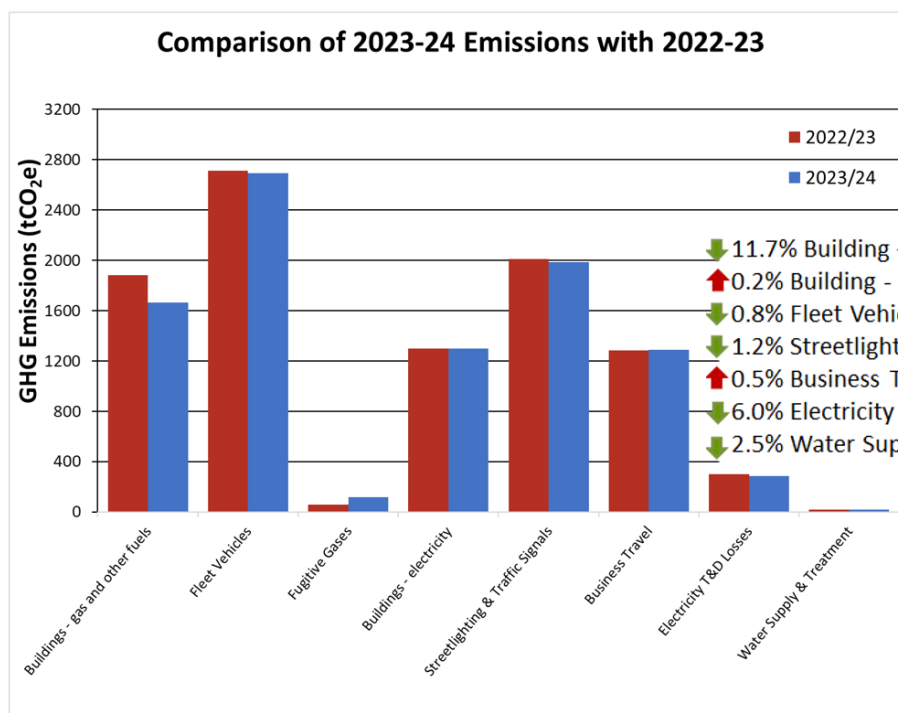


**74.1%** reduction since  
2008-09 baseline

**2.7%** decrease compared  
to 2022-23



- 254 tCO<sub>2</sub>e decrease in emissions since 2022-23
- 11.7% reduction in emissions from gas used within buildings
- All other major sources of emissions remained similar to 2022-23 levels
- 392 tCO<sub>2</sub>e emissions avoidance through the use of on-site renewable energy, equivalent of 13.3% of 2023-24 emissions
- 2.7% annual reduction of emissions in 2023-24; an average annual reduction of 5.6% is required to reach Net Zero by 2035





### 3. Organisation Information

Leicestershire County Council is the local government authority that provides council services within the Leicestershire area.

Registered address is:

County Hall  
Glenfield  
Leicestershire  
LE3 8RA.

Leicestershire County Council does not operate outside the UK, all emissions are UK based.

### Reporting Period

1 April 2023 to 31 March 2024

### Organisational Boundary and Operational Scope

The organisational boundary for reporting the Council's GHG emissions, for its own operations and activities, is operational control.

The operational scope includes the direct emissions from building heating and fleet (scope 1) and purchased electricity for buildings, streetlighting and traffic signals (scope 2), resulting from owned and leased assets and operations where the Council is in operational control and is responsible for the purchase of energy or fuel. Some scope 3 emissions are also included: business mileage (grey fleet), transmission and distribution losses for electricity consumption, water supply and treatment, and waste.

The Council has excluded GHG emissions from schools (all scopes) and contracted services such as waste disposal and business travel by public transport (scope 3), due to the cost of data collection and/or its availability. The Council has also excluded the emissions resulting from activities undertaken by contractors, due to the limited requirements for contractors to annually monitor energy and fuel usage within existing contracts.

All greenhouse gas emissions are expressed as tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e).

See Appendix 1 for more information about scopes and sources of emissions, alongside commentary describing the basis for inclusion or exclusion within the Council's GHG footprint.

## Baseline Emissions Year and Targets

The adopted baseline year is 2008-09, which the Council set in its 2011 Environment Strategy using a fixed base year approach.

Where there are relevant significant changes in the factors that informed the calculation of the base year emissions that result in a greater than 5% cumulative change in the total base year emissions, then the emissions for the base year and the year prior to the reporting year will be recalculated.

The Environment Strategy 2018-2030 includes a commitment to reduce carbon emissions from the Council's own operations to net zero.

Joanna Guyll, Assistant Director for Environment and Waste, Environment and Transport Department, is responsible for the achievement of the target.

## Calculation Method

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.

Following this guidance, activity data has been collected for energy, resource and fuel consumption in buildings and vehicles under the Council's operational control. Wherever possible, this has been actual consumption based on bills, invoices, and receipts. Activity data by volume or mass, e.g., kWh of electricity or litres of fuel, have been prioritised as they can be measured directly and used to quantify emissions more accurately. Where this is not available, other methods have been employed, for example miles travelled have been used for some transport sources. Estimated activity data represents a minor portion of emissions from building energy consumption and is derived from extrapolating known historical activity data.

The appropriate emissions factors for each year are drawn from the DESNZ Greenhouse Gas Conversion Factor Repository.

Emissions factors published in 2023 have been used for the purpose of this report, as the majority of the period covered by this report fell within the 2023 calendar year.

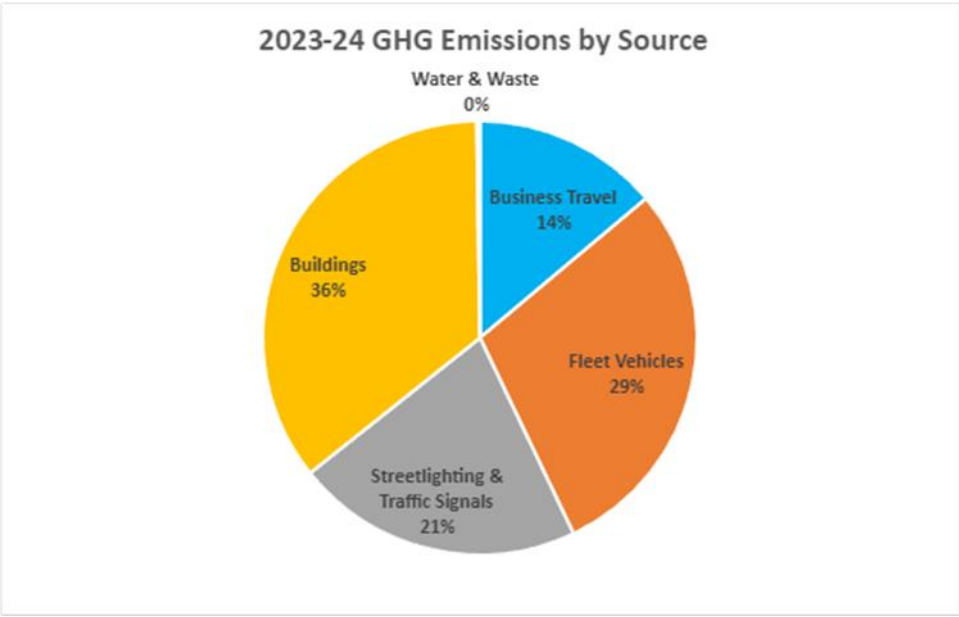
The Council has adopted 'full time equivalent (FTE) employee' as the intensity measure across the organisation. From 2014-15 onwards, the intensity measure has only been applied to the Council's emissions, excluding schools, as employee and energy data for schools are no longer held by the Council.

Leicestershire County Council has not sought independent external assurance of the Greenhouse Gas Report.

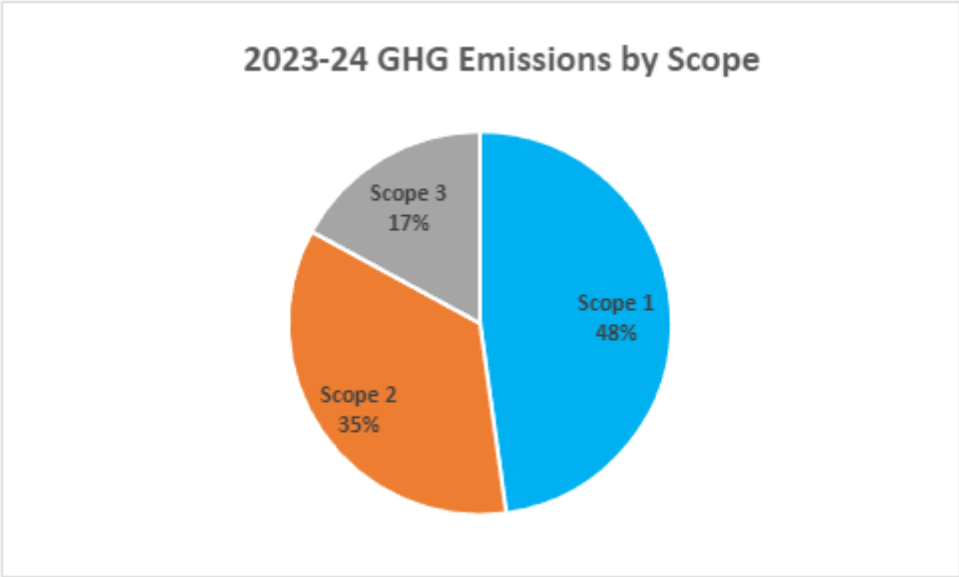
## 2023-24 Greenhouse Gas Emissions

GHG emissions data for period 1 <sup>st</sup> April 2023 to 31 <sup>st</sup> March 2024 (tCO <sub>2</sub> e)						
	Sector	2023-24	2022-23	% Change	Base Year 2008-09	% Change
Scope 1 – Direct Emissions e.g., boilers, owned transport, air conditioning gases	Buildings	1,663	1,882	-11.7	4,317	-61.5%
	Fleet vehicles	2,694	2,714	-0.8%	4,358	-38.2%
	Fugitive gases	114.9	59.7	92.5%	-	-
	<b>Sub-total</b>	4,471	4,656	-4.0%	8,675	-48.5%
Scope 2 – Energy Indirect e.g., purchased electricity	Buildings	1,299	1,297	-0.2%	6,562	-80.2%
	Streetlighting & traffic signals	1985	2,009	-1.2%	15,581	-87.3%
	<b>Sub-total</b>	3,284	3,306	-0.7%	22,143	-85.2%
Scope 3 – Other Indirect e.g., business travel and water supply/treatment	Business travel	1,289	1,283	0.5%	3,237	-60.2%
	Electricity transmission & distribution losses	284	302	-6.0%	1,722	-83.5%
	Water supply & treatment	16.1	16.6	-2.5%	-	-
	Waste	5.7	5.2	10.2%	-	-
	<b>Sub-total</b>	1,595	1,607	-0.7%	4,959	-67.8%
<b>Total Gross Emissions</b>		9,351	9569	-2.3%	35,778	-73.9%
Carbon offsets		0	0	-	0	-
Renewable energy exports		-69	-33	107.7%	0	-
<b>Total Location-based Net Emissions</b>		9,282	9536	-2.7%	35,778	-74.1%
Full time equivalent (FTE) employees		4,830	4,864	-0.7%	6,880	-29.8%
Intensity measure: tCO <sub>2</sub> e/FTE		1.92	1.96	-2.0%	5.2	-63.0%
Renewable electricity tariff		3,284	3306	-0.7%	-	-
<b>Total Market-based Net Emissions</b>		6,067	6,263	-3.1%	35,778	-83.0%
Petrol and diesel (outside of scope)		219.44	163.95	33.8%	-	-
Woodchip (outside of scope)		717	694	3.3%	-	-

*Table 1: Council 2023-24 GHG emissions, with a comparison to 2022-23 and the baseline year*

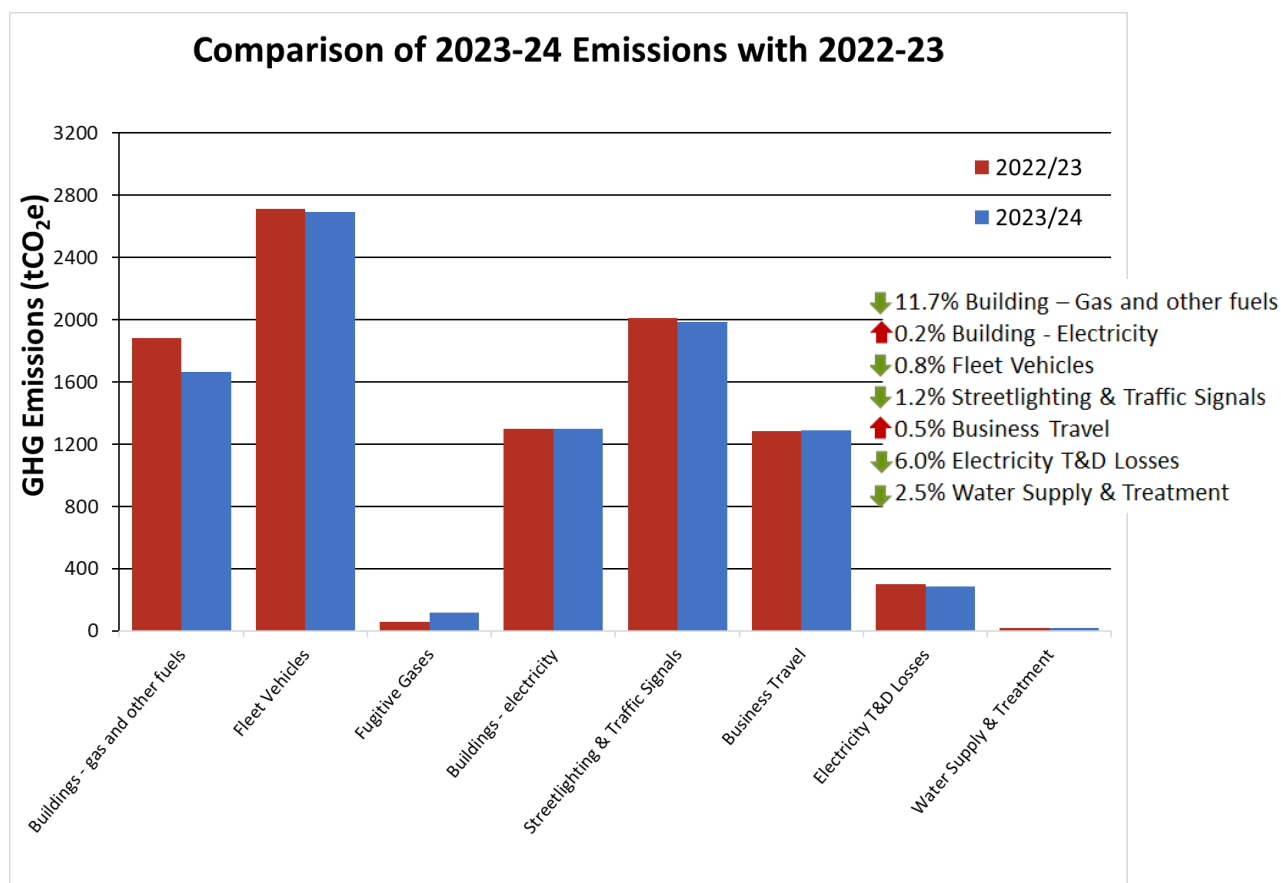


*Figure 1: Council 2023-24 GHG emissions by source.*



*Figure 2: Council 2023-24 GHG emissions by source according to scope of the assessment.*





*Figure 3: Council 2023-24 GHG emissions by source, compared to 2022-23.*

## Performance Against Baseline and 2022-23

Leicestershire County Council's net greenhouse gas emissions decreased by 2.7% (254 tCO<sub>2</sub>e) in 2023-24 to 9,282 tCO<sub>2</sub>e compared to the previous financial year. This put greenhouse gas emissions at 1.92 tCO<sub>2</sub>e per FTE employee. This is a 0.039 tCO<sub>2</sub>e decrease per FTE employee compared to 2022-23.

Overall, the Council's emissions have now reduced by 74.1% (26,496 tCO<sub>2</sub>e) since the 2008-09 baseline year. The below sections explain what caused the reduction in emissions in further detail.

## Scope 1 Emissions

### ***Buildings (Heating and Fugitive Emissions)***

Emissions from gas and other fuels used in buildings decreased by 11.7% (219 tCO<sub>2</sub>e) compared to 2022-23 levels.

The majority of this decrease was due to reduced gas use in corporate buildings, with a reduction in gas usage in commercial buildings accounting for the remainder. 41 of the 64 corporate sites billed for gas saw their usage decrease in 2023-24.

The overall decrease in gas usage partly correlates to the warmer weather in the county. “Heating degree days” are a measure of the expected heating required for a building in response to the external temperature. For this analysis, one heating degree day is equivalent to 1°C below 15.5°C for a cumulative 24-hour period. The recorded temperatures used are captured locally at the Castle Donington weather station.

The number of heating degree days, fell from 1,965 in 2022-23 to 1,847 in 2023-24 across all council buildings. The number of heating degree days is not cumulative across council buildings, therefore each of the Council’s buildings experienced 1,847 heating degree days in 2023-24. Further information on heating degree days can be found on the [Met Office Climate Data Portal](#).

County Hall showed the largest reduction in gas usage with a saving of 300,419 kWh. This was primarily due to the increased generation of 190,000 kWh (13%) from the biomass boiler. This generation, alongside further energy conservation measures, were enabled through the Public Sector Decarbonisation Scheme that was in effect from 2022 to 2024.

Fugitive emissions increased by 92.5% (55.2 tCO<sub>2</sub>e) from 59.7 tCO<sub>2</sub>e in 2022-23 to 114.9 tCO<sub>2</sub>e in 2023-24. 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.

The quantity of leaks is inherently volatile between years and due to the high global warming potential of fluorinated refrigerant gases modest leaks can have a significant impact. In 2023-24 most of the reported leakage was recorded at Embankment House (47kg) and at County Hall (8kg). F-gas leaks are minimised through regular maintenance and system upgrades driven by legal requirements. Currently the Environment Team monitors performance, but efforts are hampered by delays in receiving the necessary data from contractors.

### ***Fleet Vehicles***

Council fleet vehicle emissions reduced by 0.8% (20 tCO<sub>2</sub>e) compared to 2022-23.

Fleet vehicles include emissions from vehicles used within Highways Maintenance, Passenger Transport, Waste Management, Property Services & Country Park vehicles, Libraries Services

and Regulatory Services and ICT Vehicles. Currently the emissions produced by the small fleet of electric vehicles located at County Hall are accounted for within the buildings (electricity) section.

Across the fleet, the usage of diesel increased by 30,177 litres (3%), but part of this increase included a shift in fuel source from gas oil (20,587 litres in 2022-23 to 10,193 litres in 2023-24 (-50%)) to diesel due to a change in tax regulations. As diesel has a 9% lower carbon factor than gas oil this contributed to the emissions reduction across fleet vehicles.

Propane use decreased by 2,565 litres (-18%) from 14,493 litres in 2022-23 to 11,928 litres in 2023-24. Propane use dropped mainly due to lower usage at Tithe Barn Cafe after an increase in 2022/2023. Usage appears irregular due to batch deliveries, but current levels align with last year.

The usage of hydrotreated vegetable oil (HVO), a low emission fossil free diesel trialled within some of the Council's hard to electrify fleet vehicles, increased by 8,666 litres (41%) from 21,026 litres in 2022-23 to 29,692 litres in 2023-24. The total HVO usage avoided 73.5 tCO<sub>2</sub>e of emissions compared to using diesel. Use of HVO dropped over summer months with no HVO transactions occurring at the Market Harborough site in July or September.

Further emissions reductions occurred due to small decreases of the carbon factors for diesel and petrol. The reduction in carbon factors is largely due to updates in methodology and improved data on refining emissions and biofuel content.

Overall, the total litres of fuel used in fleet vehicles increased by 16,846 litres (1.5%) to 1,105,009 litres compared to 2022-23. This increase in total litres of fuel was largely offset through increased HVO usage, reduction in fuel carbon factors and a shift away from gas oil to diesel, which gave an overall reduction in carbon emissions.

## Scope 2 Emissions

### ***Building (Electricity)***

The emissions generated through the electricity supply to council operated buildings increased by 2 tCO<sub>2</sub>e (0.2%) from 1,297 tCO<sub>2</sub>e in 2022-23 to 1,299 tCO<sub>2</sub>e in 2023-24.

The electricity consumption in council buildings decreased by 6.5% from 6,704,640 kWh in 2022-23 to 6,271,429 kWh in 2023-24. However, this saving was offset by an increase in the electricity conversion factor, a measure of the emissions produced per kWh of electricity generated in the UK, of 7.1%. This increase is primarily due to a greater reliance nationally on natural gas and coal for electricity generation and a reduction in renewable energy output. Therefore, the net result was an increase in emissions by 0.2%.

The largest decrease in electricity usage occurred at County Hall where a saving of 161,297 kWh was achieved. Part of this reduction in consumption can be explained by improved energy efficiency measures utilised at County Hall. The increased solar PV generation of 81,279 kWh, from 248,826 kWh in 2022-23 to 330,105 kWh in 2023-24, will have also contributed towards this reduction.

Beaumanor Hall experienced a 70,569 kWh (11.9%) reduction in electricity consumption in 2023-24 compared to 2022-23. A large part of this saving was made between December and March after significant energy efficiency measures and improved electricity management was introduced. The solar PV generation also increased by 6,240 kWh.

Significant savings were also made at Judges Lodgings, Castle House (113,838 kWh) after the site was sold.

### ***Streetlighting and Traffic Signals***

Emissions produced by streetlighting, traffic signals and road signs decreased by 24 tCO<sub>2</sub>e (-1.2%) from 2,009 tCO<sub>2</sub>e in 2022-23 to 1,985 tCO<sub>2</sub>e 2023-24.

The total number of street lighting units increased by 161 (0.2%) to a total of 86,087 across Leicestershire. However, despite this increase in units the electricity used to power streetlights and traffic signals decreased by 802 MWh (7.7%) from 10,390 MWh in 2022-23 to 9,588 MWh in 2023-24.

These reductions were achieved due to an ongoing programme of “trimming and dimming” streetlights, including an 18-month pilot project announced in December 2023, to allow dimming to a 30% intensity between 8pm and 10pm. This applied to most of the Council’s 68,500 centrally managed lighting units, except where an exemption was made relating to road safety or crime risk.

In 2023-24 the carbon conversion factor for electricity increased by 7.1% compared to the 2022-23 figure. The net result of this and the Council’s reduced electricity usage for streetlights and traffic signals, was a decrease in emissions by 1.2%.

## **Scope 3 Emissions**

### ***Business Travel***

Council business travel emissions increased by 6 tCO<sub>2</sub>e (0.5%) from 1,283 tCO<sub>2</sub>e in 2022-23 to 1,289 tCO<sub>2</sub>e in 2023-24.

Business travel emissions cover all travel undertaken by staff in personal vehicles while on council business for which mileage claims are submitted. Regular commuting and journeys undertaken by motorcycles and bicycles are not included in this figure.

Overall mileage increased by 136,888 miles (2.9%) from 4,671,639 miles in 2022-23 to 4,808,527 miles in 2023-24. The carbon conversion factor for the average vehicle (average is used because vehicle size used by staff is unknown) fell by 2.3%. Overall, there was a net increase in business mileage emissions by 0.5%.

## ***Electricity Transmission and Distribution Losses***

Electricity transmission and distribution loss emissions decreased by 17.9 tCO<sub>2</sub>e (6%) from 302 tCO<sub>2</sub>e in 2022-23 to 284.1 tCO<sub>2</sub>e in 2023-24.

These emissions are made up of the energy losses incurred during the transmission and distribution of electricity from the points of production to the points of use. This section includes losses for the Council's usage of electricity for buildings, streetlighting and traffic signals.

These emissions are largely determined by the usage of electricity which is under the Council's influence. In 2023-24 the Council's usage fell by 7.2% from 17,094,324 kWh in 2022-23 to 15,859,405 kWh. Transmission and distribution loss emissions are also determined by the transmission and distribution loss conversion factor which increased by 1.27% in 2023-24 compared to 2022-23. This conversion figure is outside of the Council's influence and is prone to year-to-year fluctuation.

## ***Water Supply and Treatment***

Water supply and treatment emissions decreased by 0.41 tCO<sub>2</sub>e (2.5%) from 16.55 tCO<sub>2</sub>e in 2022-23 to 16.14 tCO<sub>2</sub>e in 2023-24. These emissions relate to the water supplied to buildings for use in domestic hot and cold-water systems, heating systems, cleaning and ground maintenance.

Emissions for water supply and treatment are largely dependent on water usage and are therefore mainly under the Council's influence. Water usage increased by 3,242m<sup>3</sup> (8%) from 40,633m<sup>3</sup> in 2022-23 to 43,875m<sup>3</sup> in 2023-24.

Emissions are also dependant on the conversion factors for water supply and treatment. In 2023-24 the conversion factor for supply increased by 19%, however the conversion factor for treatment decreased by 26%.

Overall, the year's decrease in water supply and treatment emissions was primarily caused by the fall in treatment conversion factor as both usage and the water supply conversion factor increased.

## ***Waste***

Waste emissions increased by 0.5 tCO<sub>2</sub>e (9.6%) from 5.2 tCO<sub>2</sub>e in 2022-23 to 5.7 tCO<sub>2</sub>e in 2023-24. These emissions cover the removal and disposal of "non-operational" waste materials from council operated buildings. This increase in emissions is primarily due to an increase in total waste volume of 25.3 tonnes (10.1%) from 250 tonnes in 2022-23 to 275.3 tonnes in 2023-24.

Overall, compared to pre-covid levels the tonnes of waste produced has decreased significantly and over the past 3 years has been consistently in the range of 250-275 tonnes. For reference, 272.9 tonnes of waste was produced in 2021-22 but 357.7 tonnes of waste was produced in 2019-20.

## Performance Against 2035 Net Zero Target

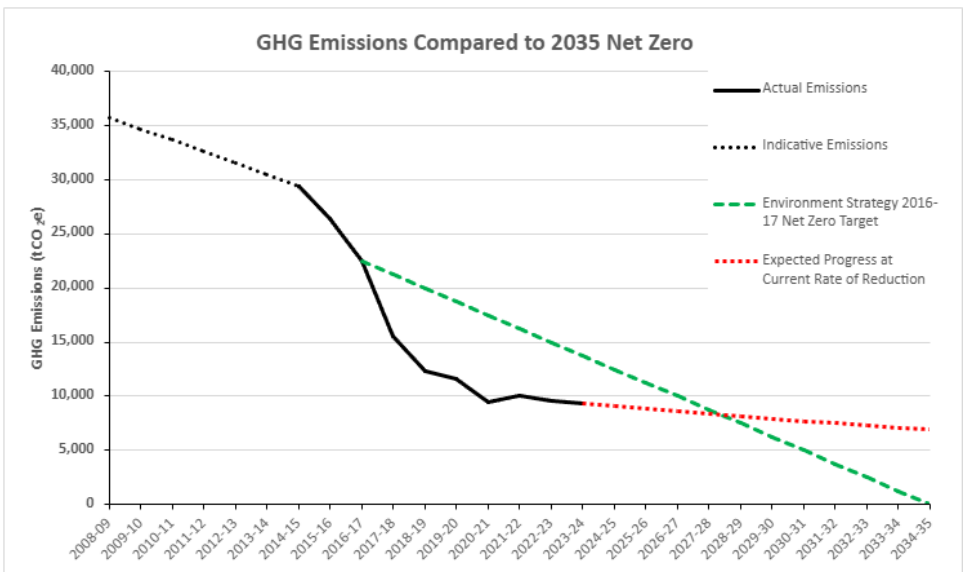
Leicestershire County Council’s net GHG emissions in 2023-24 are 74.1% lower than the 2008-09 baseline. This is a 0.4% improvement compared to the previous reduction of 73.7% up to 2022-23 from the 2008-09 baseline. Figure 4 below demonstrates that the Council's emissions are now at their lowest ever levels.

Based on the 2016-17 baseline year, specified within the 2018-2030 Environment Strategy, the target level of emissions for 2023-24 was 13,752 tCO<sub>2</sub>e assuming a linear reduction in emissions to 2035. With an actual emissions figure of 9,282 tCO<sub>2</sub>e in 2023-24, we are ahead of the target in year.

The Council achieved significant early progress since 2008-09 by capitalising on ‘quick wins’ to reduce emissions substantially, however the rate of reduction has slowed over recent years, as expected, due to fewer opportunities for substantial cuts, which are now smaller in scale and often require significant financial investment. From 2016-17 an average annual reduction in emissions of 5.6% is required to meet net zero by 2035. The annual reduction for 2023-24 was 2.7%, which is less than half the rate required. If this rate of reduction were to continue, the Council will not achieve net zero carbon emissions for its operations by 2035, and calculations show the Council would still be emitting approximately 4,600 tonnes of CO<sub>2</sub>e by 2050, the national target for Net Zero.

In Figure 4, the dotted red line represents the expected rate of emissions reduction if the 2023-24 rate of reduction, 2.7%, was to continue until 2034-35. At this rate of reduction, the Council will not achieve its net zero target by 2035. In this scenario, the Council’s emissions would be an estimated 6,900 tCO<sub>2</sub>e of emissions in 2034-35. Despite the great work that has previously been completed to bring the council ahead of the net zero target set within the 2016-17 Environment Strategy, at the current rate of reduction, the Council will fall behind the targeted annual reduction rate in 2028.

**Figure 4:** Council net GHG emissions compared to 2035 Net Zero



*Figure 4: Council net GHG emissions compared to 2035 Net Zero target*

## Renewable Energy and Emissions Avoidance

### **Solar PV Panels & Biomass**

The Council has invested in solar photo-voltaic (PV) panels on many of its buildings. It is estimated that 25% of the electricity generated is not used directly in these buildings and is instead exported to the national grid for use by others outside the council.

PV generation from County Hall has been excluded from the calculation as due to the high energy consumption present on site, it is likely that no energy is exported to the grid.

In 2023-24 the Council is estimated to have exported 332,964 kWh of electricity to the grid accounting for 68.9 tCO<sub>2</sub>e (0.7% of the Council's total gross emissions). This is an estimated increase of 161,296 kWh from 171,668 kWh in 2022/23 (33.2 tCO<sub>2</sub>e). An estimated 35.7 tCO<sub>2</sub>e of emissions have been avoided due to this year's increase in solar energy generation.

This increase partly occurred due to an increase in registered systems providing significant new capacity at Apollo Court, the Bardon Waste Transfer Station and Kibworth Recycling and Household Waste Sites (RHWS). These improvements have caused a second successive annual record for solar PV generation from council assets.

Leicestershire County Council also uses biomass to provide heat to most buildings on the County Hall campus. When combined with local solar PV generation on the council's corporate buildings, 13.3% of energy used by the Council is from on-site renewables and avoided 392 tCO<sub>2</sub>e of greenhouse gas emissions in 2023-24 compared to if gas and grid electricity were consumed. This is equivalent to 4.2% of net emissions.

In 2023-24 biomass generated 71% of the total renewable energy across corporate sites and 43% of County Hall heating energy input. The biomass boiler generated 1,613,400 kWh of energy in 2023-24 compared to 1,423,500 kWh of energy in 2022-23. This represents a 13.3% increase.

The Council continues to source biomass from a local supplier, Milner's Forestry, based in Markfield, which provides benefits of cost savings, carbon reduction, and biodiversity improvement, as well as local economy and woodland management benefits. 90% of the material used is sourced within The National Forest under management plans and felling licences. The remaining 10% of material is sourced from local arboricultural waste. The distance travelled to transport biomass to County Hall is reduced through this contract, whilst supporting local sustainable forestry management and reinforcing green jobs across the county.



### ***Market-Based Emissions and Green Tariff***

The Council changed its electricity contract to a green tariff in October 2019, meaning all grid electricity used now comes from renewable energy sources. In line with DEFRA/BEIS guidance and the Greenhouse Gas Protocol, the council's headline emissions figures focus attention on location-based emissions. This means that the national average grid electricity carbon intensity is used as the conversion factor and not the factor associated with the green tariff being procured.

In recognition of the Council's positive step in having a green energy tariff in 2023-24 and supporting national decarbonisation of the electricity grid by increasing demand for low-carbon energy, the GHG report also considers the Council's emissions following a market-based approach to reporting emissions. A market-based approach enables the Council to directly reflect the emissions associated with the electricity it purchases for its operations.

Following this approach, the Council's 2023-24 total electricity emissions (3,284 tCO<sub>2</sub>e), made up of emissions produced through supplying energy for buildings, streetlighting and traffic signals, are considered zero due to the electricity being produced by renewable sources. Therefore, removing this figure from the location-based emissions (9,292 tCO<sub>2</sub>e) provides the total market-based emissions for the council in 2023-24 as 6,067 tCO<sub>2</sub>e. This represents an 83.0% reduction from the 2008-09 baseline compared to the 74.1% location-based figure stated in this report.

## Appendix 1 - Operational Scopes

The Council has measured scope 1, 2 and a subset of scope 3 emissions within the GHG Report, where accurate and annual data is available. The different scopes of emissions are described below:

- **Scope 1** (direct emissions): Activities owned or controlled by the Council that release emissions straight into the atmosphere. Examples include emissions from owned or controlled boilers and vehicles.
- **Scope 2** (energy indirect): Emissions being released into the atmosphere associated with the consumption of purchased electricity, heat, steam and cooling. These are indirect emissions that are a consequence of the Council's activities, but which occur at sources not owned or controlled.
- **Scope 3** (other indirect): Emissions are a consequence of the Council's actions, which occur at sources which are not owned or controlled. Examples of scope 3 emissions include business travel (e.g. use of staff vehicles or public transport), employee commuting, and purchased goods and services.

	Notes on inclusions and exclusions
<b>Scope 1</b>	
Council combustion e.g. gas, solid and liquid fuels in boiler plant	All fuel used in council owned and leased buildings where we are responsible for the bills (excludes schools). Less than 5% of total fuel use excluded where information was unavailable.
Owned and leased transport	Fuel consumption has been excluded if the Council does not pay for fuel
Fugitive emissions	Data is gathered 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 and maintenance between years.
<b>Scope 2</b>	
Purchased electricity	All electricity used in all council owned and leased buildings where we have operational control and are responsible for the bills (excludes schools).
<b>Scope 3</b>	The Council is working to improve its data availability and quality for scope 3 emissions reporting and has included wider actions to influence these emissions within its Net Zero Council Action Plan.
Fuel well to tank emissions	Well to tank emissions from energy, gas, liquid and solid fuels consumption have been excluded e.g. diesel, LPG, coal, electricity and natural gas.

Business travel	Business travel by public transport has been excluded, based on previous years this represents approximately 1% of scope 3.
Employee commuting	Excluded due to lack of good quality information and availability of data. The council does not routinely monitor commuting, so information was not available.
Water supply and treatment	Included since the 2020-21 GHG Report. As of 2023-24, the Council only reports water treatment emissions equivalent to 95% of the total water supply volume. This is based on the assumption that not all supplied water is treated, in line with Severn Trent Water billing. This change has also been applied to the 2022-23 figures for accurate comparison.
Waste generated in operations	Waste generated in council offices has been included since the 2020-21 GHG Report. Other sources of waste generated in council operations (e.g., highways construction) have been excluded due to data availability.
Purchased goods and services / Capital goods	Excluded due to lack of good quality information and availability of data.
Downstream leased assets	Some included within the Council's scope 1 and 2 data. Separation of third-party emissions where another organisation leases areas within some council assets is not possible due to lack of good quality information and availability of data.
Investments	Excluded due to lack of good quality information and availability of data.
<b>Recorded sources of emissions which are outside of the scope</b>	
Biomass fuel - woodchip	As a renewable fuel source, the carbon emitted from burning biomass is not included in the calculation as this will be reabsorbed by growing fuel trees as part of the natural carbon cycle.
Vehicle fuels – biofuels in petrol and diesel	Standard vehicle fuels include a small percentage of biofuels. The carbon emissions from this element are 'out of scope' as it will be reabsorbed by new biomass crops.