

Leicester
City Council

Leicester City Council

Carbon Footprint Statement for 2022/23

March 2024

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1. Executive Summary

Leicester City Council is committed to reducing carbon emissions from its own estate and operations and has set itself an ambition to reach net zero emissions by 2030/31.

Each year a carbon footprint is calculated for the council, which presents the greenhouse gas emissions the council is responsible for, expressed as carbon dioxide equivalent (CO₂e). The carbon footprint calculated for the baseline year of 2008/09 was 46,836 tonnes CO₂e and included all scope 1 and scope 2 and some scope 3 emissions. The different emission scopes are explained in the corresponding sections of the report.

At the end of the 2022/23 financial year emissions were 16,415 tCO₂e. This represents:

- a reduction of 30,421 tCO₂e (65%) from the 2008/09 baseline
- a reduction of 451 tCO₂e (2.7%) from 2021/22

Further details of the changes in emissions compared to both the 2008/09 baseline year and to 2021/22 are provided in the later sections of the report covering each emissions scope.

Wherever possible the reasons behind changes to the footprint have been provided in this report. In particular it should be noted that the covid-19 pandemic and associated public health measures have had a major impact on figures over recent financial years. This includes a much larger than usual annual fall in emissions in 2020/21 during pandemic restrictions, followed by an increase in 2021/22 as restrictions were eased.

2. Introduction

In February 2019 Leicester City Council became one of the first UK local authorities to declare a Climate Emergency. As part of the council's response to the Climate Emergency an ambition was declared to achieve net zero carbon emissions for the city and the council by 2030. This report presents progress towards this ambition within the council's own operations.

Greenhouse gas emissions from human activity are a key driver of dangerous climate change, which represents a huge risk to both the city of Leicester and to humanity and biodiversity worldwide. The council is committed to play its part in rapidly reducing the

emissions from its operations, as well as helping residents and organisations in the city to do the same.

In order to measure progress in reducing its emissions, Leicester City Council monitors emissions from each area of its activities. The emissions are broken down into the three scopes set out by the Greenhouse Gas Protocol, which are explained in section 5 of this report. The report sets out the council's carbon footprint for the 2022/23 financial year, and compares them to a baseline year of 2008/09, as well as providing figures for the intervening years.

Leicester City Council is committed to a wide range of actions to reduce its environmental impact and make the city more sustainable. The council is in the process of updating its Climate Emergency Action Plan, outlining a wide-ranging programme of action to drive the move towards net zero carbon in the council and city. Further information, and the updated plan when available, can be viewed at:

<https://www.leicester.gov.uk/your-council/policies-plans-and-strategies/environment-and-sustainability/climate-emergency/>

3. Company Information

This carbon footprint statement is for Leicester City Council, City Hall, 115 Charles Street, Leicester, LE1 1FZ.

Leicester City Council is the unitary authority responsible for providing council services to people and organisations within Leicester, a city of over 350,000 residents. Its responsibilities include education, highways, transport planning, passenger transport, social care, housing, libraries, leisure and recreation, environmental health, waste collection and disposal and planning. Further information about the council can be found on its website here: <https://www.leicester.gov.uk/your-council/about-us/>

4. Reporting Period

Carbon emissions are measured over the financial year, therefore the period covered in this report is 1st April 2022 to 31st March 2023.

5. Reasons for Change in Emissions

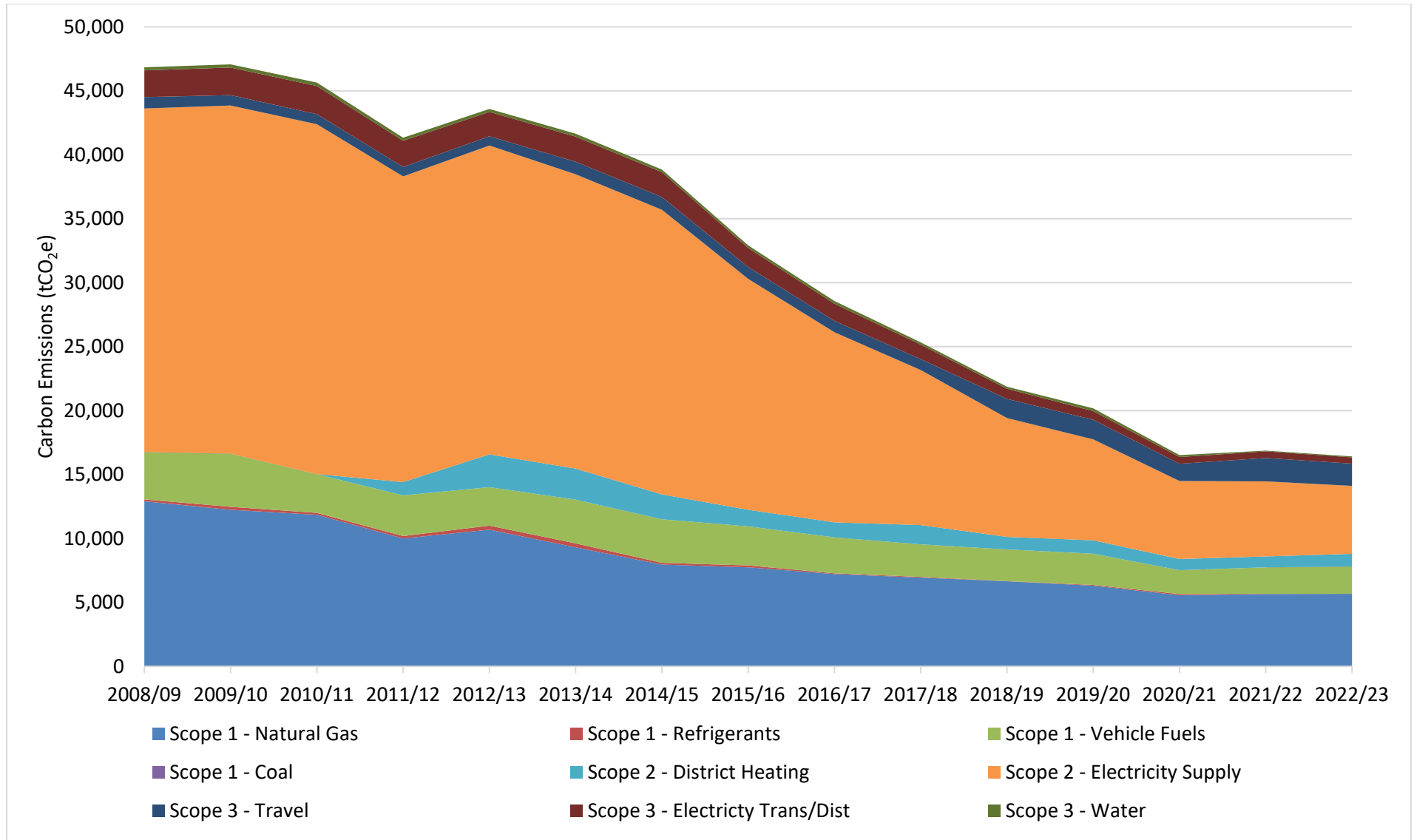
Leicester City Council's operational carbon emissions fell by 451 tCO₂e (2.7%) overall for the 2022/23 financial year, after a 349 tCO₂e (2.1%) increase in 2021/22. The main driver of the changes over the last few years has been the ongoing effects of the Covid-19 pandemic. Emissions fell dramatically in 2020/21 as many staff moved to home working, buildings were closed, and many services delivered remotely, with an increase then seen in 2021/22 as the city began to recover from the main impacts of the pandemic. Emissions have increased in some areas in 2022/23 as this recovery continues, although this has been offset by falls in other areas, presenting a complex overall picture of changes.

The council's emissions remain a long way below those in the baseline year of 2008/09, having fallen by 30,421 tCO₂e (65%) since this time, and also remain significantly lower than in pre-pandemic years. Emissions per full-time equivalent staff member (FTE) have also fallen in 2022/23 to 3.2 tCO₂e per employee, from 3.4 tCO₂e per employee in 2021/22. This is a larger fall than for emissions overall as there was also a small increase in staffing numbers for the year. Emissions per staff member are also significantly lower than the 2008/09 baseline figure of 7.2 tCO₂e.

Table 1 below shows an overall summary of emissions from 2008/09 to the current year, including emissions per FTE staff member. Within this report emissions are analysed and discussed under scopes 1, 2 & 3, as set out by the Greenhouse Gas Protocol. Graph 1 shows Leicester City Council's overall carbon emissions since 2008/09, split between the main emissions sources within each scope. Details of how these emissions have changed over time, and a more detailed breakdown of each scope is provided below.

Table 1 – Leicester City Council’s Greenhouse Gas Emissions (tonnes of CO₂e) from 2008/09 to 2022/23

Category	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23
Total Gross Emissions	46,836	47,067	45,647	41,333	43,585	41,652	38,842	32,917	28,566	25,333	21,862	20,169	16,517	16,867	16,415
Carbon Offsets	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Green Tariffs	Not calculated														
Net Emissions	46,836	47,067	45,647	41,333	43,585	41,652	38,842	32,917	28,566	25,333	21,862	20,169	16,517	16,867	16,415
Change from 08/09 baseline	n/a	231	-1,189	-5,503	-3,251	-5,184	-7,994	-13,919	-18,270	-21,503	-24,974	-26,667	-30,319	-29,969	-30,421
Change from 08/09 (%)	n/a	0.5%	-2.5%	-11.7%	-6.9%	-11.1%	-17.1%	-29.7%	-39.0%	-45.9%	-53.3%	-56.9%	-64.7%	-64.0%	-65.0%
Tonnes of CO ₂ e per FTE	7.2	7.1	6.9	6.5	6.8	6.7	6.5	5.7	5.2	4.8	4.3	4.0	3.3	3.4	3.2



Graph 1 – Leicester City Council’s Greenhouse Gas Emissions by scope and source from 2008/09 to 2022/23

5.1 Scope 1 Emissions

- 5.1.1. Scope 1 emissions are direct emissions, which result from activities owned or controlled by Leicester City Council which release emissions straight into the atmosphere. This includes all of the fuels directly burned in council owned vehicles and boilers, as well as 'fugitive' emissions due to leaks of refrigerant gases which cause climate change from air-conditioning units and heat pumps. A summary of scope 1 emissions can be seen in Table 2.
- 5.1.2. Overall scope 1 emissions were 7,811 tCO₂e in 2022/23, an increase of 0.8% (15.3 tCO₂e) compared to the previous year. This is, however, a reduction of 53.4% (8,947 tCO₂e) since the baseline year of 2008/09, and emissions for each of the categories within this scope remain below their level pre-pandemic levels in 2019/20.
- 5.1.3. The largest increase in scope 1 emissions for the year came from use of fuel in the council's own vehicle fleet, for which emissions increased by 3% (62 tCO₂e). This is likely a result of small changes in service delivery. It may also reflect an ongoing increase in activity after a major fall in 2020/21 due to Covid-19 restrictions, when many staff were required to work and deliver services remotely.
- 5.1.4. There was also a rise in emissions from consumption of natural gas in council buildings, of 0.3% (15.3 tCO₂e) for the year. This is a result of a small increase in the carbon emissions factor for natural gas, with actual gas consumption falling by 0.2%
- 5.1.5. Emissions from air-conditioning leakage decreased significantly this year, by 68.9% (13.4 tCO₂e), with these emissions fluctuating year on-year due to issues with individual units.
- 5.1.6. Emissions from coal consumption rose by 50.3% (1.2 tCO₂e). This is a direct result of 1 tonne of coal being purchased for use in a fireplace at a historic property, with no purchase made in the previous year due to stocks lasting for more than one year. This category was added to the footprint for the first time in 2021/22, making this the first year where progress updates are available.

Table 2 – Scope 1 Emissions (tonnes of CO₂e)

Category	Area	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23
Fuels	Natural Gas	12,905	12,239	11,854	10,008	10,692	9,307	7,963	7,748	7,217	6,940	6,657	6,307	5,564	5,656	5,671
	Coal	0	0	0	0	0	0	0	0	0	0	0	0	0	2.4	3.6
Owned Vehicles	Vehicle Fleet	3,703	4,156	3,029	3,190	3,002	3,422	3,405	3,049	2,813	2,551	2,480	2,437	1,866	2,068	2,131
Fugitive Emissions	Air-Con	150	233	148	176	314	309	135	147	61	52	8	63	92	19	6
	Total	16,758	16,629	15,032	13,374	14,007	13,038	11,503	10,944	10,090	9,543	9,146	8,807	7,522	7,746	7,811

5.2 Scope 2 Emissions

- 5.2.1 Scope 2 emissions are those resulting from the council's consumption of purchased electricity and heat. These emissions occur as a result of the council's activities, but they occur at sources not owned or controlled by the council. The largest source of the council's scope 2 emissions is the electricity that it purchases, including that which is used to run street lighting and traffic signalling. Scope 2 emissions also include those created in generating the heat purchased through the district heating scheme. This is a network of insulated piping that delivers heat from central boilers to buildings around the city. A summary of scope 2 emissions can be seen in Table 3.
- 5.2.2 Scope 2 emissions fell by 6.2% (419.3 tCO_{2e}) in the 2022/23 financial year and have fallen by 76.5% since 2008/09.
- 5.2.3 Within the overall reduction referred to above, there was a reduction in emissions from electricity use within council buildings of 9.3% (363 tCO_{2e}). The majority of this reduction is a result of an 8.9% in the carbon intensity of UK electricity. This is the amount of carbon emitted per kWh of electricity generated, and it has been falling for a number of years as renewables such as wind and solar PV are added to the UK grid. There was also a small decrease in electricity consumption at these sites. The council continues to make improvements to its portfolio of buildings, and since the original 2008/09 baseline electricity consumption from its buildings has fallen by more than 40%. In 2022/23 increases in consumption were seen at a number of sites, which is likely to be due to ongoing recovery from the pandemic and a rise in activity.
- 5.2.4 Emissions from street lighting and traffic signalling also showed a decrease in scope 2 emissions for 2022/23, falling by 8.8% (144 tCO_{2e}) and 14.2% (52 tCO_{2e}) respectively. This is a result of a small reduction in energy use due to ongoing work to replace older traffic signals with LEDs, and the reduction in the carbon intensity of grid electricity.
- 5.2.5 Emissions from use of the district heating system rose by 16.5% (141 tCO_{2e}) in the year. This is due to an increase in the carbon factor of the network, with consumption of heat within the buildings connected to the network actually falling this year.

Table 3 – Scope 2 Emissions (tonnes of CO₂e)

Category	Area	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23
Purchased Heat	District Heating	0	0	0	1,038	2,570	2,421	1,946	1,303	1,175	1,503	981	1,048	874	853	993
Purchased Electricity	Buildings	15,310	15,770	16,380	13,833	13,999	13,565	13,483	11,734	9,891	8,093	6,264	5,204	3,765	3,864	3,500
	Street Lighting	10,148	10,013	9,521	8,665	8,723	8,055	7,317	5,034	4,009	3,269	2,415	2,178	1,894	1,636	1,492
	Traffic Signals	1,399	1,438	1,452	1,399	1,421	1,398	1,447	1,276	952	766	605	511	435	366	314
	Total	26,858	27,221	27,353	24,935	26,712	25,438	24,192	19,346	16,028	13,631	10,265	8,941	6,968	6,719	6,300

5.3 Scope 3 Emissions

- 5.3.1 Scope 3 emissions are indirect emissions, those that occur due to the council's activities but do not take place at sources under its ownership or control, and do not come under scope 2. This includes emissions from transport activities (including use of 'grey fleet'¹ vehicles and business travel by staff), water consumption (from the energy used to provide and treat water used in council buildings) and from energy lost through the distribution of electricity through the national grid. A summary of scope 3 emissions can be seen in Table 4.
- 5.3.2 Scope 3 emissions have fallen somewhat this year, by 3.9% (94 tCO_{2e}), however they remain larger than in 2008/09. The main reason for this increase since the baseline is the addition of emissions from passenger transport to the footprint from 2018/19 onwards.
- 5.3.3 Emissions from the 'grey fleet' (employees using their own vehicles for work travel) rose by 7.1% (20 tCO_{2e}). This is expected to be a result of a return to normal business following pandemic restrictions, with these emissions remaining below their pre-pandemic levels in 2019/20.
- 5.3.4 For emissions from the transmission and distribution of electricity there was a 6.4% (22 tCO_{2e}) reduction for council buildings. As for the scope 2 emissions this reflects a 5.4% reduction in this part of the carbon factor of electricity, and a small fall in consumption of electricity. Emissions from street lighting and traffic signalling fell by 5.7% (8 tCO_{2e}) and 11.4% (4 tCO_{2e}) respectively. As with the scope 2 emissions from these sources this is due to the reduction in the carbon factor and a fall in consumption for the traffic signalling.
- 5.3.5 There has been a reduction in emissions from business travel by council staff of 4.2% (4 tCO_{2e}) and passenger transport by service users of 7.5% (108 tCO_{2e}). This is largely a result of a change in the figure used to estimate the emissions from taxi use, as well as ongoing changes to service delivery year-on-year.
- 5.3.6 Emissions have increased significantly, by 55.5% (31 tCO_{2e}), from water supply and treatment (specifically from the energy required for these processes). This appears to

¹ Grey Fleet refers to employees using their own vehicles to carry out their work, for which they are reimbursed by the council.

be a result of an increase in consumption; however, this appears to be a result of metering issues at some sites and will be monitored going forwards.

- 5.3.7 Data is not currently collected for emissions from staff commuting to work or emissions from services commissioned through outsourced contracts (except for passenger transport), from the manufacture or transport of purchased goods and materials or from waste disposal.
- 5.3.8 An estimate of the council's emissions from staff home working has been developed but is not included in the overall figures at this time due to uncertainties in the calculation. According to this estimate, home working is responsible for 1,482 tCO_{2e} in 2022/23. This is expected to have increased significantly since the move to greater remote working during the pandemic, although this is balanced by a reduction in energy usage in the council's own buildings at the same time.

Table 4 – Scope 3 Emissions (tonnes of CO₂e)

Category	Area	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23
Transport Related	Grey Fleet Travel	825	775	737	677	653	651	541	515	531	401	394	417	191	288	308
	Business Travel	69	38	54	61	74	322	457	418	359	447	44	30	17	94	90
	Passenger Transport ²	0	0	0	0	0	0	0	0	0	0	1,068	1,091	1,143	1,451	1,342
Purchased Electricity - T&D ³	Buildings	1,190	1,249	1,319	1,182	1,106	1,160	1,179	969	895	757	534	442	324	342	320
	Street Lighting	789	793	767	740	689	689	640	416	363	306	206	185	163	145	136
	Traffic Signals	109	114	117	120	112	119	127	105	86	72	52	43	37	32	29
Water	Supply	68	82	87	80	75	76	67	67	70	58	50	69	50	18	28
	Treatment	170	168	180	164	155	157	137	138	145	119	104	143	102	32	50
	Total	3,220	3,217	3,262	3,024	2,865	3,175	3,147	2,627	2,447	2,159	2,451	2,421	2,027	2,402	2,304

² Emissions not previously calculated until 2018/29

³ T&D stands for Transmission & Distribution.

6. Reporting Methodology

The report follows the Environmental Reporting Guidelines provided by the UK government on voluntary carbon emission reporting for organisations under Streamlined Energy & Carbon Reporting (SECR).

Further details are available at:

<https://www.gov.uk/government/publications/environmental-reporting-guidelines-including-mandatory-greenhouse-gas-emissions-reporting-guidance>

Leicester City Council previously reported under the UK government's Emissions Reduction Pledge 2020, developed specifically for public sector organisations. This programme has now concluded, and as yet no replacement guidance on targets and reporting has been provided for the public sector specifically.

The 2022/23 figures in this report were calculated using the UK government's published greenhouse gas conversion factors for 2022. These are provided by the Department for Energy, Sustainability & Net Zero (DESNZ) and are available at:

<https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2022>

7. Organisational Boundary and Operational Scope

This report covers emissions produced from Leicester City Council's operations, including:

- Scope 1 emissions from building heating, fuel use and air-conditioning.
- Scope 2 emissions from purchased electricity for buildings and street lighting and purchased heat.
- Scope 3 emissions from business mileage and passenger transport, electricity transmission and distribution and water consumption.

This report excludes emissions from outsourced and contracted services (except passenger transport), waste disposal and consumption of goods and materials due to the cost and complexity of data collection or lack of availability. This report also does not cover emissions from schools in the city.

8. Baseline Year

Leicester City Council's carbon footprint reporting baseline year is the 2008/2009 financial year, which is the first year for which detailed greenhouse gas emission figures are available.

9. Targets & Responsibility

Following Leicester City Council's declaration of a Climate Emergency in 2019, an ambition was declared to achieve net zero carbon for the city and the council by 2030.

Leicester's Deputy City Mayor for Transport, Clean Air and Climate Emergency, Cllr Adam Clarke, has overall responsibility for sustainability action within the council. This report is produced by the council's Sustainability Service, which leads on the Climate Emergency response within the city council.

10. Intensity Measurement

The Council has chosen an intensity ratio based on the number of full-time equivalent staff. This is because the number of staff gives the best indication of the scale of operational activity of the organisation. The intensity measure is reported in Table 1.

11. External Assurance

The data reported in this document is not subject to external verification.

12. Carbon Offsets

Carbon offsets allow organisations to pay for projects to be carried out that reduce carbon emissions outside their organisational boundary, as an alternative to reducing their own carbon emissions.

Leicester City Council is committed to reducing its own emissions as far as possible, as purchasing carbon offsets will not prevent us needing to make these reductions in the long term. Therefore, until we have reached a satisfactory level of reductions, purchase of carbon offsets will not be considered by the council.

13. Electricity & Heat

Gas purchased for our own consumption: 30,826 MWh

Electricity purchased for our own consumption: 27,440 MWh

Renewable electricity generated from owned or controlled sources: 491 MWh

Exports of electricity to the grid from owned or controlled sources are not metered separately.

No metered heat was generated at council owned or controlled sources in 2022/23. A number of council buildings are connected to a district heat network, controlled by an external provider, and carbon emissions data for this is included under Scope 2.

14. Green Tariffs

Leicester City Council purchased electricity from 100% renewable sources in the 2022/23 financial year.

15. Contact

This report was prepared by Aidan Davis, Sustainability Officer, on behalf of Leicester City Council.

For further information about Leicester City Council's sustainability actions, please visit: <https://www.leicester.gov.uk/your-council/policies-plans-and-strategies/environment-and-sustainability/climate-emergency/>

If you wish to contact us, please email: sustainability@leicester.gov.uk