

Leicester
City Council

Leicester City Council

Carbon Footprint Statement 2018/19

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1. Executive Summary

Leicester City Council is committed to reducing carbon emissions¹ from its own estate and operations, and has set itself a target to reduce carbon emissions by 50% by 2025 based on a 2008/09 baseline. This equates to a carbon reduction of 33,927 tonnes in 17 years. The council is also reporting on progress towards the UK government's voluntary Emissions Reduction Pledge 2020, which asks public sector bodies to reduce their CO₂e emission by 30% by 2020/21, compared to a baseline year of 2009/10.

The carbon footprint calculated for the baseline year of 2008/09 was 67,853 tonnes CO₂e (carbon dioxide equivalent) and included all scope 1 and scope 2 and some scope 3 emissions. The total carbon footprint for the Emissions Reduction Pledge 2020 baseline year of 2009/10 was 66,851 tCO₂e.

At the end of the 2018/19 financial year emissions stood at 36,989 tCO₂e. This represents:

- a reduction of 30,865 tCO₂e from the 2008/09 baseline figure, equal to 45.5.2%
- a reduction of 29,862 tCO₂e from the 2009/10 baseline figure, equal to 44.7%

This means that Leicester City Council, having met and exceeded the voluntary Emissions Reduction Pledge 2020 target in 2017/18, has now exceeded it by 14.7%. The council is also 91% of the way to achieving its internal 50% reduction target by 2025. Details of the changes in carbon emissions figures compared to both the 2008/09 baseline year and 2018/19 are highlighted under the sections of the report for each scope.

Wherever possible the reasons behind changes to the footprint have been provided in this report. In some cases, however, a much more detailed analysis than it is practical to carry out with existing resources would be required to fully explain the changes seen.

2. Introduction

Leicester City Council is committed to taking comprehensive action to significantly reduce the carbon dioxide equivalent (CO₂e) greenhouse gas emissions produced by its

¹ Carbon emissions refers to emissions of greenhouse gases which contribute to global warming. This is measured as carbon dioxide equivalent (CO₂e), and includes other gases covered by the Kyoto Protocol.

activities. The council has been working towards a target of reducing its emissions by 50% by 2025, compared to a 2008/09 baseline. This report also shows progress towards the UK government's voluntary target for public sector organisations; the Emissions Reduction Pledge 2020. This aims for a reduction in emissions of 30% by 2020/21, compared to a baseline year of 2009/10

In 2019 Leicester City Council also joined local authorities around the country in declaring a Climate Emergency. As part of the council's response to the Climate Emergency an ambition has been set to achieve carbon neutrality for the city and the council by 2030. Further details of this target are currently being developed.

Carbon emissions from human activity are a key driver of dangerous climate change, which represents a significant risk to both the city council and the residents of Leicester. The council is keen to play its part in reducing the carbon emissions from its operations, as well as helping residents and organisations in the city to do the same.

In order to measure progress on reducing its emissions, Leicester City Council monitors emissions from each area of its activities, which are broken down into three scopes, as shown in this report. This report sets out Leicester City Council's carbon emissions for the 2018/19 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 also committed to a wide range of actions to reduce its environmental impact and make the city more sustainable. Following the Climate Emergency declaration, work is underway to develop a radical new programme of action to drive the move towards carbon neutrality in the city.

A full list of actions carried out so far is set out in Leicester's Sustainability Action Plan which is available on the council's website at: <https://www.leicester.gov.uk/your-council/policies-plans-and-strategies/environment-and-sustainability/sustainability-action-plan/>

3. Company Information

This Carbon Footprint Statement is for Leicester City Council, City Hall, 115 Charles Street, Leicester, LE1 1FZ.

4. Reporting Period

Carbon emissions are measured over the financial year, therefore the period covered in this report is 1st April 2018 to 31st March 2019.

5. Change in Emissions

Leicester City Council's operational carbon emissions have fallen yet again in 2018/19, and have now declined for 6 years in a row. This year emissions have reduced by 13.1% compared to 2017/18, or 5,581 tCO₂e. This is a reduction of 45.5% compared to the council's chosen baseline year of 2008/09, and means that the council has achieved 91% of its target to halve emissions by 2025 on 2008/09 levels.

The level of emissions per full-time equivalent staff member (FTE) have also decreased to 4 tCO₂e per employee. This compares to last year's figure of 4.2 tCO₂e, and the baseline figure of 5.6 tCO₂e in 2008/09.

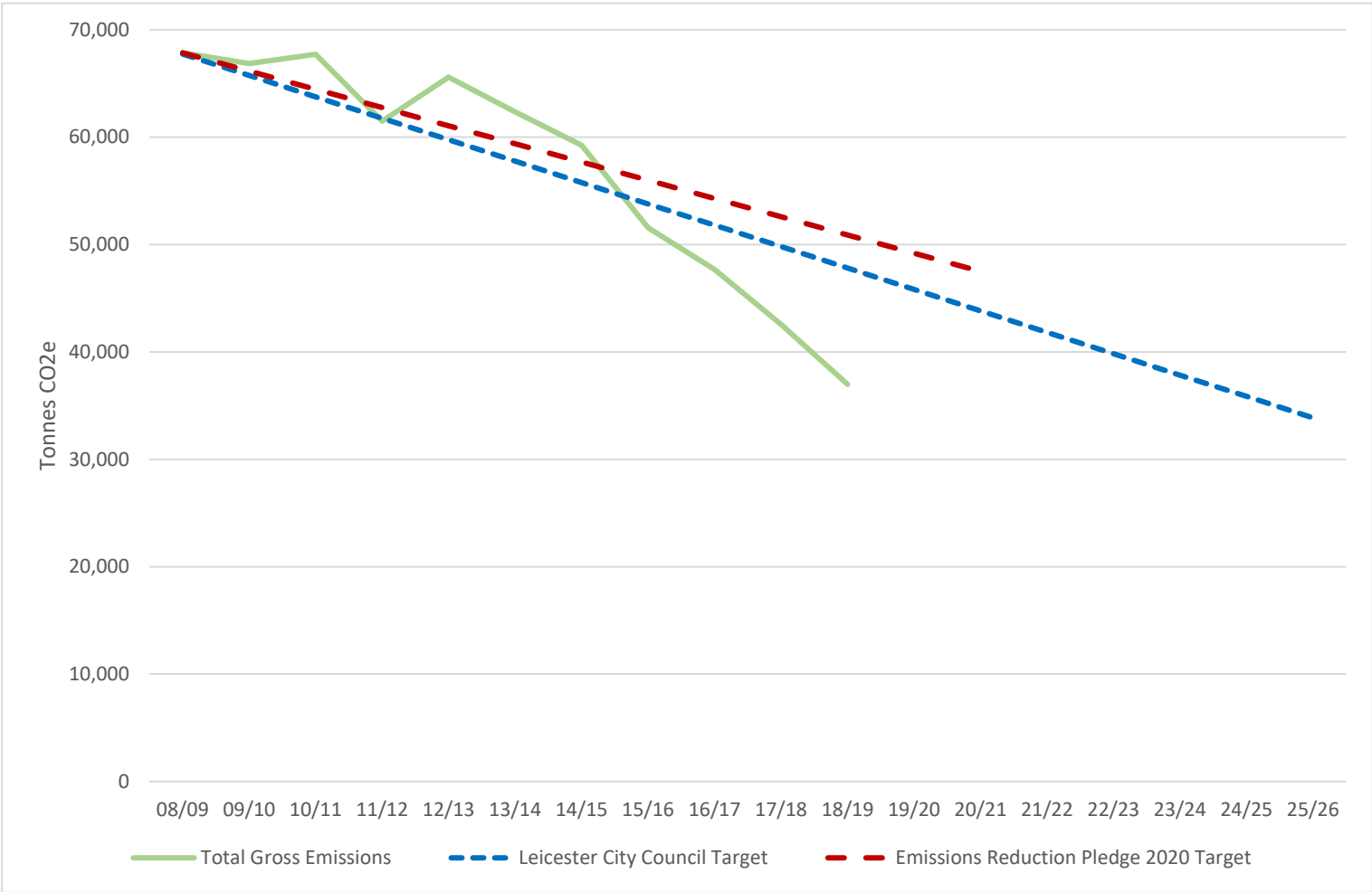
Carbon emissions have also reduced by 29,862 tCO₂e from the 2009/10 baseline figure, equal to 44.7%. Leicester City Council already met and exceeded the UK Government's voluntary Emissions Reduction Pledge 2020 target of a 30% reduction in 2017/18, well ahead of the 2020 goal. The council has now exceeded this target by 14.7%, with two years remaining.

Changes in emissions are highlighted and discussed under the relevant scope later in this report, and compared to both the 2008/09 baseline year and 2017/18. Table 1 below shows an overall summary of emissions from 2008/09 to the current year, including emissions per FTE staff member. It also shows the change on the baseline years of 2008/09 and 2009/10 for each year. Graph 1 shows Leicester City Council's progress compared to both of the emissions reduction targets.

Table 1 – Total Emissions (tonnes of CO₂e)

Category	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	
Total Gross Emissions	67,853	66,851	67,718	61,476	65,592	62,338	59,249	51,561	47,686	42,569	36,989	
Carbon Offsets	0	0	0	0	0	0	0	0	0	0	0	
Green Tariffs	Not calculated											
Net Emissions	67,853	66,851	67,718	61,476	65,592	62,338	59,249	51,561	47,686	42,569	36,989	
All changes based on Gross Emissions	Change from 08/09 baseline	n/a	-1,003	-135.71	-6,378	-2,262	-5,515	-8,604	-16,292	-20,168	-25,284	-30,865
	Percentage Change from 08/09 baseline	n/a	-1.5%	-0.2%	-9.4%	-3.3%	-8.1%	-12.7%	-24.0%	-29.7%	-37.3%	-45.5%
	Change from 09/10 baseline	n/a	n/a	867.236	-5,375	-1,259	-4,512	-7,601	-15,289	-19,165	-24,281	-29,862
	Percentage Change from 09/10 baseline	n/a	n/a	1.3%	-8.0%	-1.9%	-6.8%	-11.4%	-22.9%	-28.7%	-36.3%	-44.7%
	Tonnes of CO ₂ e per FTE	5.6	5.4	5.5	5.4	5.7	5.5	5.2	4.7	4.6	4.2	4.0

Graph 1 – Changes in Leicester City Council’s Gross CO₂e Emissions Compared with Trajectories to Meet Targets



5.1 Scope One 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 fuels used by schools, and emissions due to leaks of gases which cause climate change from air-conditioning units. A summary of scope 1 emissions can be seen in Table 2.
- 5.1.2. Overall scope 1 emissions have remained at almost the same level for 2018/19 compared to the previous year, increasing by just 0.3%. They have however decreased by 38% since the baseline year of 2008/09 and 34% on 2009/10, and emissions have decreased in all individual categories in scope 1 since the baseline years.
- 5.1.3. The main increase in emissions is from a 6% rise from natural gas emissions from schools' buildings. This is partially due to a correction of billing issues from 2017/18, where a number of large users did not report billing data.
- 5.1.4. The largest decrease comes from gas use in corporate buildings, where emissions have fallen by 4.1%. This is a result of both an ongoing programme of building rationalisation, energy efficiency improvements made to the remaining buildings and the winter of 2018/19 being warmer than the previous year.
- 5.1.5. Emissions from vehicle fuel use have also decreased, driven by a reduction in emissions from the council's vehicle fleet. This is due to a fall in vehicle usage due to a reduction in staff number and the availability of a number of new electric pool cars and pool bikes. There was also a small fall in the emissions factor for diesel, which is used by most council vehicles.
- 5.1.6. A reduction in fugitive emissions from air-conditioning units was also seen in the year, this is largely due to a change in methodology, with actual data being used in

place of estimates. There was however also a small reduction in recorded leakage incidents in the same time period.

5.1.7. Emissions from other fuel use remained roughly the same, and continues to make up less than 1% of the footprint. This fuel is all used for machinery in the council's parks service, and no significant changes were expected this year.

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
Fuels Combustion	Natural Gas (Corporate)	12,905	12,239	11,854	10,008	10,692	9,307	7,963	7,748	7,217	6,940	6,657
	Natural Gas (Schools)	10,402	9,480	10,787	9,140	10,031	8,329	7,441	7,172	8,352	7,463	7,917
	LPG	28	25	21	26	16	29	2	6	0	5	1
	Petrol	53	54	35	27	37	35	37	38	22	18	18
	Diesel	529	510	175	166	225	193	210	170	150	146	147
	Schools Fuels Combustion ²	372	71	343	326	324	103	15	7	0	0	0
Owned Vehicles	Vehicle Fleet	3,093	3,568	2,799	2,970	2,723	3,165	3,157	2,835	2,641	2,383	2,313
Fugitive Emissions	Air Conditioning (Corporate)	150	233	148	176	314	309	135	147	61	52	8
Total		27,532	26,180	26,162	22,840	24,363	21,470	18,960	18,123	18,442	17,006	17,063

² This figure shows use of fuels such as solid fuels and oil that were previously used for non-gas heating systems at schools, which have now all been replaced.

5.2 Scope Two Emissions

- 5.2.1 Scope 2 emissions are emissions resulting from the council's consumption of purchased electricity and heat. These are emissions due to the council's activities, but occur at sources not owned or controlled by the council. This includes all of the electricity that the council purchases, in both council buildings and schools, and the electricity used to run our street lighting and traffic signalling. This also includes the heat that is 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 decreased significantly in the 2018/19 financial year, dropping by 25.1% compared to last year, and have decreased by 56.7% on the council's baseline of 2008/09. They have also decreased by 57.8% on 2009/10, due to a small increase between the two baseline years.
- 5.2.3 Emissions from electricity generation have fallen across all of the areas shown, by between 21% and 26%. This was driven largely by a 19% reduction in the carbon factor for electricity generation on the UK's national electricity grid. The emissions from electricity use in corporate buildings have fallen further due to the ongoing programme to reduce the overall number of buildings occupied by the council, and the increase in energy efficiency of the remaining buildings. Work to replace public lighting with LEDs has also contributed to a reduction in this area. Electricity usage in schools has also declined, although this is partly due to improvements in energy efficiency, and partly due to a small number of individual billing issues.
- 5.2.4 Following an increase in 2017/18, emissions for council use of Leicester's district heating system have fallen significantly this year, and are well below those of 2016/17. This is largely due to a reduction in the carbon intensity of the scheme, following the resolution of issues with the CHP and biomass plants which increased emissions last year. There has also been a reduction in overall heat usage, due in part to more efficient use of buildings and improvements to heating controls, as well as the warmer winter.

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
Purchased Heat	District Heating (Corporate)	0	0	0	1,038	2,570	2,421	1,946	1,303	1,175	1,503	1,001
	District Heating (Schools)				1,095	1,236	1,011	931	779	625	789	568
Purchased Electricity	Buildings (Corporate)	16,501	17,019	17,699	15,015	15,105	14,725	14,662	12,702	9,891	8,093	6,264
	Buildings (Schools)	10,243	10,232	10,941	9,582	10,415	11,243	12,020	10,686	9,464	8,349	6,218
	Street Lighting	10,937	10,806	10,287	9,406	9,412	8,744	7,956	5,450	3,847	3,137	2,317
	Traffic Signalling	1,508	1,552	1,569	1,519	1,534	1,517	1,574	1,381	952	766	605
Total		39,189	39,609	40,497	37,654	40,271	39,661	39,089	32,301	25,955	22,636	16,973

5.3 Scope Three 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, but which do not come under scope 2. This includes emissions from transport related activities (including grey fleet and business travel), and from energy lost through the distribution of electricity through the national grid. Data is not collected for emissions from its staff commuting to work. These fall within the city-wide carbon footprint rather than the council's own estate and operations. The footprint does not include data for outsourced contracts, purchased materials or waste disposal as time constraints and data complexities make it prohibitive to collect and calculate these. A summary of scope 3 emissions can be seen in Table 4.
- 5.3.2 Scope 3 emissions have increased by 1,841 tCO₂e since 2008/09, and 1,911 tCO₂e since 2009/10, and have increased by 1.6% in the 2018/19 financial year. The increase since the baseline years is mostly due to the inclusion of emissions from the transmission and distribution of electricity. These emissions were not calculated separately until 2016/17, and totalled 1,313 tCO₂e in 2018/19, which is a decrease of 40% on 2016/17. They have decreased over the year mainly as a result of a 26% reduction in the carbon emissions factor used to calculate them, and lower electricity consumption, especially in street and traffic lighting and corporate buildings.
- 5.3.3 Emissions from business travel, which is travel by staff using taxis, trains, buses and occasionally planes for council business, have increased significantly in the financial year. These emissions have risen by 555 tCO₂e in 2018/19, which is to a change in the calculation methodology to include a previously unreported source of travel.
- 5.3.4 Emissions from corporate grey fleet vehicles (employees using their own vehicles for council business) have decreased by 1.6%, mainly due to a fall in staff numbers.
- 5.3.5 Emissions from the council's use of water in corporate buildings has been included in the figures for the first time this year. Data has also been provided back to the baseline years, to allow for accurate comparison. As such it can be seen that water-related emissions have fallen by 13% on last year, and by 35% and 38% on 2008/09

and 2009/10 respectively. The reasons for this reduction are likely a fall in the number of buildings and work to improve water efficiency within the council estate.

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
Transport Related	Grey Fleet Travel	825	775	737	677	653	651	541	515	531	401	394
	Business Travel (Corporate)	69	38	54	61	74	322	457	418	359	447	44
	Passenger Transport	Not Previously Calculated Separately										1068
	Commuting	Not Calculated										
Purchased Electricity (Transmission & Distribution)	Buildings (Corporate & Housing)	Electricity transmission and distribution emissions not previously calculated separately.								895	757	534
	Buildings (Schools)									856	781	530
	Street Lighting									348	293	198
	Traffic Signalling									86	72	52
Outsourcing	Outsourced Contracts	Not Calculated										
Purchasing		Not Calculated										
Waste Disposal		Not Calculated										
Water	Supply	68	82	87	80	75	76	67	67	70	58	50
	Treatment	170	168	180	164	155	157	137	138	145	119	104
Total		1,132	1,062	1,059	982	958	1,207	1,201	1,137	3,289	2,927	2,973

6. Approach

This report follows the Government's guidance³ on how to measure and report greenhouse gases.

7. Organisational Boundary and Operational Scope

This report covers emissions produced from Leicester City Council's operations including schools under city council control and academies. Reporting also includes carbon emissions related to the work done to provide and maintain social housing services, but does not include emissions from council-owned housing.

The report does not cover emissions generated by outsourced service providers in operating public services on behalf of the council. Nor does it cover emissions generated by suppliers of goods or services to the council, including emissions generated during the manufacture or transportation of goods.

8. Baseline Year

Leicester City Council's carbon reporting baseline year is the 2008/2009 financial year. The baseline year for the UK government's voluntary Emissions Reduction Pledge 2020 is the 2009/2010 financial year.

9. Targets

Leicester City Council has committed to reducing carbon emissions from its operations by 50% by 2025, based on the 2008/09 baseline year. This is a reduction of 30,655 tonnes in 17 years. Progress towards this target is measured annually, and reported in the Leicester Sustainability Action Report.

In addition, the UK Government has set the voluntary Emissions Reduction Pledge 2020 target for public sector organisations. This asks them to commit to reducing their carbon emissions by 30% by 2020/21 compared to a baseline year of 2009/10. Leicester City Council is reporting progress against this target, but has not formally adopted it.

³ The UK Government's Emissions Reduction Pledge 2020 guidance can be found at: <https://www.gov.uk/government/publications/emissions-reduction-pledge-2020-emissions-reporting-in-public-and-higher-education-sectors>

Following Leicester City Council's declaration of a Climate Emergency in 2019, a new ambition has been set to achieve carbon neutrality in the city. The details of this target are currently under development.

10. Intensity Measurement

The Council has chosen an intensity ratio based on the number of full time equivalent staff. This includes staff on temporary contracts, agency workers and staff working in schools. The intensity measure is reported in Table 1.

11. Conversion Factors

The 2018-19 figures in this report were calculated using the UK Government's published conversion factors for 2018. These are provided by the Department for Business, Energy and Industrial Strategy (BEIS) and are available at:

<https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2018>

12. External Assurance

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

13. Carbon Offsets

Carbon offsets allow organisations to pay for projects to be carried out that reduce carbon emissions elsewhere in the country or world, 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, carbon offsets will not be purchased by the council.

14. Green Tariffs

Leicester City Council purchases electricity from 100% renewable sources which meet GHG Protocol Corporate Standards for zero-carbon electricity.

15. Contact Details

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/sustainability-action-plan/>

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