

Leicester
City Council

Leicester City Council

Carbon Footprint Statement 2019/20

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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 an ambition to reach net zero carbon emissions by 2030/31. From the baseline year of 2008/09 this equates to a reduction of 46,836 tonnes in 23 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 46,836 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 45,458 tCO₂e.

At the end of the 2019/20 financial year emissions stood at 20,073 tCO₂e. This represents:

- a reduction of 26,763 tCO₂e from the 2008/09 baseline figure, equal to 57.1%
- a reduction of 26,994 tCO₂e from the 2009/10 baseline figure, equal to 57.4%

This means that Leicester City Council, having met the voluntary Emissions Reduction Pledge 2020 target in 2015/16, has now exceeded it by 27.4%. The council has also exceeded its previous internal target of a 50% reduction by 2025. Details of the changes in carbon emissions figures compared to both the 2008/09 baseline year and 2019/20 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. 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, superseding the previous target of reducing emissions by 50% by 2025, compared to 2008/09. 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 of 2009/10

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 2019/20 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, a new Climate Emergency Strategy and Climate Emergency Action Plan will be published in Autumn 2020, outlining a comprehensive programme of action to drive the move towards carbon neutrality in the council and city.

A full list of previous work 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 2019 to 31st March 2020.

5. Change in Emissions

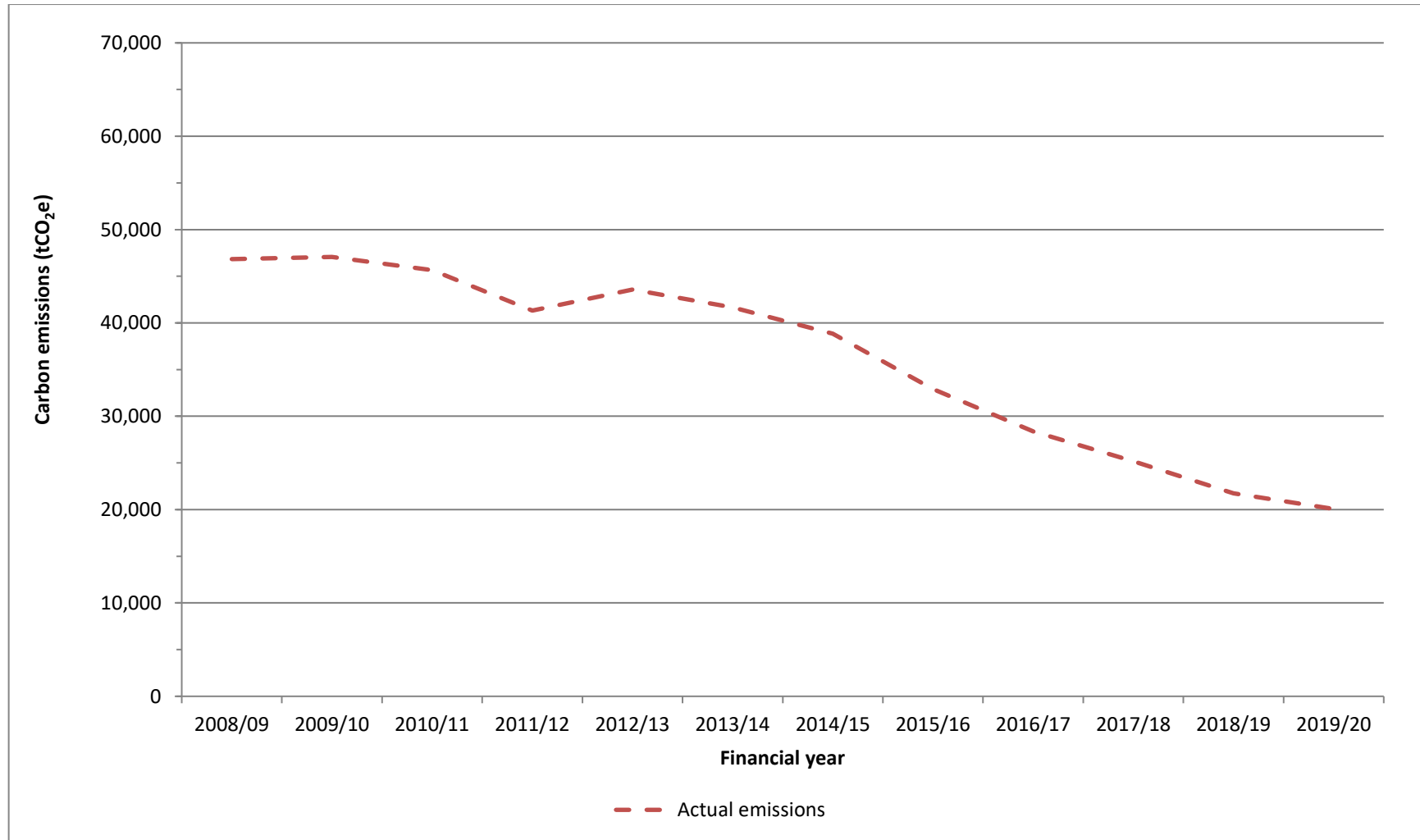
Leicester City Council's operational carbon emissions have fallen yet again in 2019/20 and have now declined for 7 years in a row. This year emissions have reduced by 7.7% compared to 2018/19, or 1,682 tCO_{2e}. This is a reduction of 57.1% compared to the council's chosen baseline year of 2008/09. The level of emissions per full-time equivalent staff member (FTE) have also decreased to 4 tCO_{2e} per employee. This compares to last year's figure of 4.3 tCO_{2e}, and the baseline figure of 7 tCO_{2e} in 2008/09.

This means that the council has exceeded its previous target of reducing emissions by 50% by 2025, well ahead of time, and is making significant progress towards the new ambition of achieving carbon neutrality. Carbon emissions have also reduced by 26,994 tCO_{2e} from the 2009/10 baseline figure, equal to 57.4%. Leicester City Council exceeded the UK Government's voluntary Emissions Reduction Pledge 2020 target of a 30% reduction in 2015/16 and has now exceeded it by 27.4%.

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 2019/20. 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 our emissions reduction goal.

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
Total Gross Emissions	46,836	47,067	45,647	41,333	43,585	41,652	38,842	32,917	28,388	25,187	21,756	20,073
Carbon Offsets	0	0	0	0	0	0	0	0	0	0	0	0
Green Tariffs	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Net Emissions	46,836	47,067	45,647	41,333	43,585	41,652	38,842	32,917	28,388	25,187	21,756	20,073
Change from 08/09 baseline	n/a	231	-1,189	-5,503	-3,251	-5,184	-7,994	-13,919	-18,448	-21,649	-25,080	-26,763
Percentage Change from 08/09 baseline	n/a	0.5%	-2.5%	-11.7%	-6.9%	-11.1%	-17.1%	-29.7%	-39.4%	-46.2%	-53.5%	-57.1%
Change from 09/10 baseline	n/a	n/a	-1,421	-5,735	-3,483	-5,416	-8,226	-14,150	-18,679	-21,880	-25,312	-26,998
Percentage Change from 09/10 baseline	n/a	n/a	-3.0%	-12.2%	-7.4%	-11.5%	-17.5%	-30.1%	-39.7%	-46.5%	-53.8%	-57.4%
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

Table 1. Total Emissions (tonnes of CO₂e)



Graph 1. Changes in Leicester City Council's Gross CO₂e Emissions from 2008/09 to 2019/20

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 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 were 8,807 tCO₂e in 2019/20, a fall of 3.7% compared to the previous year, a reduction of 47.4% since the baseline year of 2008/09 and 47% since 2009/10. Emissions have fallen significantly in all individual categories in scope 1 since the baseline years.
- 5.1.3. The main increase in emissions is from a 55 tCO₂e increase in air conditioning leakage emissions, due to a one-off loss of refrigerant from a large unit. There is also a small increase in emissions from petrol used by Parks machinery, although this is more than offset by a larger reduction in diesel usage.
- 5.1.4. The largest decrease comes from gas use in corporate buildings, where emissions have fallen by 5%. This is a likely a result of both an ongoing programme of building rationalisation and energy efficiency improvements made to the buildings, despite indications that the winter of 2019/20 was colder than the previous year.
- 5.1.5. There was a small reduction of 1.1% in emissions from council-owned vehicle use. This is due to a reduction in the carbon factors used, as vehicle used increased slightly despite a small reduction in overall vehicle numbers.

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
Fuels Combustion	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
	LPG	28	25	21	26	16	29	2	6	0	5	1	1
	Petrol	53	54	35	27	37	35	37	38	22	18	18	22
	Diesel	529	510	175	166	225	193	210	170	150	146	147	126
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	2,288
Fugitive Emissions	Air Conditioning	150	233	148	176	314	309	135	147	61	52	8	63
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

Table 2. Scope 1 Emissions (tonnes of CO₂e)

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 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 2019/20 financial year, dropping by 9.7% compared to last year, and have decreased by 69.4% on the council's baseline of 2008/09 and 69.9% on 2009/10. A partial reason for the large fall since the baseline years is the separation of transmission and distribution emissions into the scope 3 section of the budget, although the large majority of the reduction is due to the factors detailed below.
- 5.2.3 Emissions from electricity generation have fallen across all of the areas shown, by an average of 15%. This was driven primarily by a reduction of 9.7% in the carbon factor for electricity from the national grid. Actual electricity consumption also fell significantly for council buildings; as with gas consumption this reflects ongoing rationalisation of the corporate estate and energy efficiency projects. Additionally, the council has a number of solar PV systems supplying renewable energy directly to buildings and reducing demand from the grid. There was also a smaller fall in electricity consumption from streetlights and traffic signals due to ongoing work to replace public lighting with efficient LEDs.
- 5.2.4 Emissions from the councils use of Leicester's district heating system have risen slightly this year, although they remain well below the high experience in 2017/18. This is largely due to an increase in consumption, which may be a result of the colder winter experienced in Leicester in 2019/20. There has also been a small increase in the carbon factors of the three parts of the scheme, as these fluctuates slightly year on year.

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
Purchased Heat	District Heating	0	0	0	1,038	2,570	2,421	1,946	1,303	1,175	1,503	981	1,048
Purchased Electricity	Buildings	16,501	17,019	17,699	15,015	15,105	14,725	14,662	12,702	9,891	8,093	6,264	5,204
	Street Lighting	10,937	10,806	10,287	9,406	9,412	8,744	7,956	5,450	3,847	3,137	2,317	2,089
	Traffic Signalling	1,508	1,552	1,569	1,519	1,534	1,517	1,574	1,381	952	766	605	511
Total		28,946	29,377	29,556	26,977	28,620	27,406	26,138	20,836	15,865	13,498	10,167	8,853

Table 3. Scope 2 Emissions (tonnes of CO₂e)

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. A summary of scope 3 emissions can be seen in Table 4.
- 5.3.2 Data is not collected for emissions from its staff commuting to work, as these emissions fall within the city-wide carbon footprint rather than the council's own estate and operations. The footprint also does not currently include data for outsourced contracts, purchased materials or waste disposal as time constraints and data complexities make it prohibitive to collect and calculate these.
- 5.3.3 Scope 3 emissions have remained stable, falling by just 1.4% against 2018/19. Emissions appear to have increase significantly since 2008/09 and 2009/10, however this is mainly due to the inclusion of emissions from passenger transport from 2018/19 and the movement of transmission and distribution of electricity to this part of the footprint from 2016/17.
- 5.3.4 The main source of reductions in 2019/20 is a fall in emissions from the transmissions and distribution of electricity. As reported for Scope 2 emissions this is due to a combination of a reduction in emissions factors and reduction in electricity consumption.
- 5.3.5 Emissions from grey fleet travel have risen by 5.6% this year, although this is at least partially due to changes in the data collection methodology this year to correct previous issues. Emissions have also risen slightly, by 2.2%, for passenger travel by council service users, likely reflecting ongoing high demand for all social care services. There has been a reduction in business travel emissions of 30.7%, driven almost entirely by a significant reduction in air travel.

5.3.6 Emissions from the council's use of water in corporate buildings have risen by 37.7% since last year, when they were introduced to the figures for the first time. This appears to be a result of increased consumption in a number of different buildings, although specific reasons for this increase have not yet been identified.

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)	Electricity transmission and distribution emissions not previously calculated separately.								856	781	530
	Street Lighting	Electricity transmission and distribution emissions not previously calculated separately.								348	293	198
	Traffic Signalling	Electricity transmission and distribution emissions not previously calculated separately.								86	72	52
Outsourcing	Outsourced Contracts	Not Calculated										
Other	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

Table 4. Scope 3 Emissions (tonnes of CO_{2e})

6. Approach

This report follows the Government's guidance² on how to measure and report greenhouse gases. As the Emissions Reductions Pledge goal is for 2020, there is as yet no guidance on future targets and reporting for local authorities going forwards.

7. Organisational Boundary and Operational Scope

This report covers emissions produced from Leicester City Council's operations. Reporting 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 for the UK government's voluntary Emissions Reduction Pledge 2020 is the 2009/2010 financial year.

9. Targets

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 and for the council. This replaces the previous target of reducing emissions by 50% from a 2008/09 baseline.

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.

10. Intensity Measurement

² 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>

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 2019-20 figures in this report were calculated using the UK Government's published conversion factors for 2019. 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-2019>

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. However, this is not counted against our emissions, as it does not remove the need for local and national progress in reducing electricity use and increasing efficiency.

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