

Leicester
City Council

Leicester City Council

Carbon Footprint Statement 2020/21

October 2022

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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 become carbon neutral 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 emissions by 30% by 2020/21, compared to a baseline year of 2009/10. Figures are also reported against the previous year's footprint.

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 different emission scopes are explained in the relevant section of the report. The total carbon footprint for the Emissions Reduction Pledge 2020 baseline year of 2009/10 was 45,458 tCO₂e.

At the end of the 2020/21 financial year emissions stood at 16,441 tCO₂e. This represents:

- a reduction of 30,395 tCO₂e from the 2008/09 baseline figure, equal to 64.9%
- a reduction of 30,627 tCO₂e from the 2009/10 baseline figure, equal to 65.1%
- a reduction of 3,633 tCO₂e from 2019/20, equal to 18.1%

This means that Leicester City Council, having met the voluntary Emissions Reduction Pledge 2020 target in 2015/16, has now exceeded it by 35.1%. 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 particular it should be noted that the covid-19 pandemic and associated public health measures have had a major impact on this year's figures. 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.

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.

2. Introduction

Leicester City Council is committed to taking comprehensive action to make its own estate and operations carbon neutral. 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 has been set to achieve carbon neutrality for the city and the council by 2030. This report presents progress towards this ambition and 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 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 carbon 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, which are broken down into three scopes, as shown in this report. This report sets out Leicester City Council's carbon emissions for the 2020/21 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. The council has produced a Climate Emergency Strategy and Action Plan, outlining a comprehensive programme of action to drive the move towards carbon neutrality in the council and city. This 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.

4. Reporting Period

Carbon emissions are measured over the financial year, therefore the period covered in this report is 1st April 2020 to 31st March 2021.

5. Change in Emissions

Leicester City Council's operational carbon emissions have fallen significantly in 2020/21 and have now declined for 8 years in a row. It should be noted that the changes in 2020/21 have been heavily influenced by the Covid-19 pandemic, particularly the long-lasting local lockdown in the city. This year emissions have reduced by 18.1% compared to 2019/20, or 3,633 tCO₂e. This is a reduction of 64.9% compared to the council's chosen baseline year of 2008/09. The level of emissions per full-time equivalent staff member (FTE) has also decreased to 3.2 tCO₂e per employee. This compares to last year's figure of 4.0 tCO₂e, and the baseline figure of 7.2 tCO₂e in 2008/09.

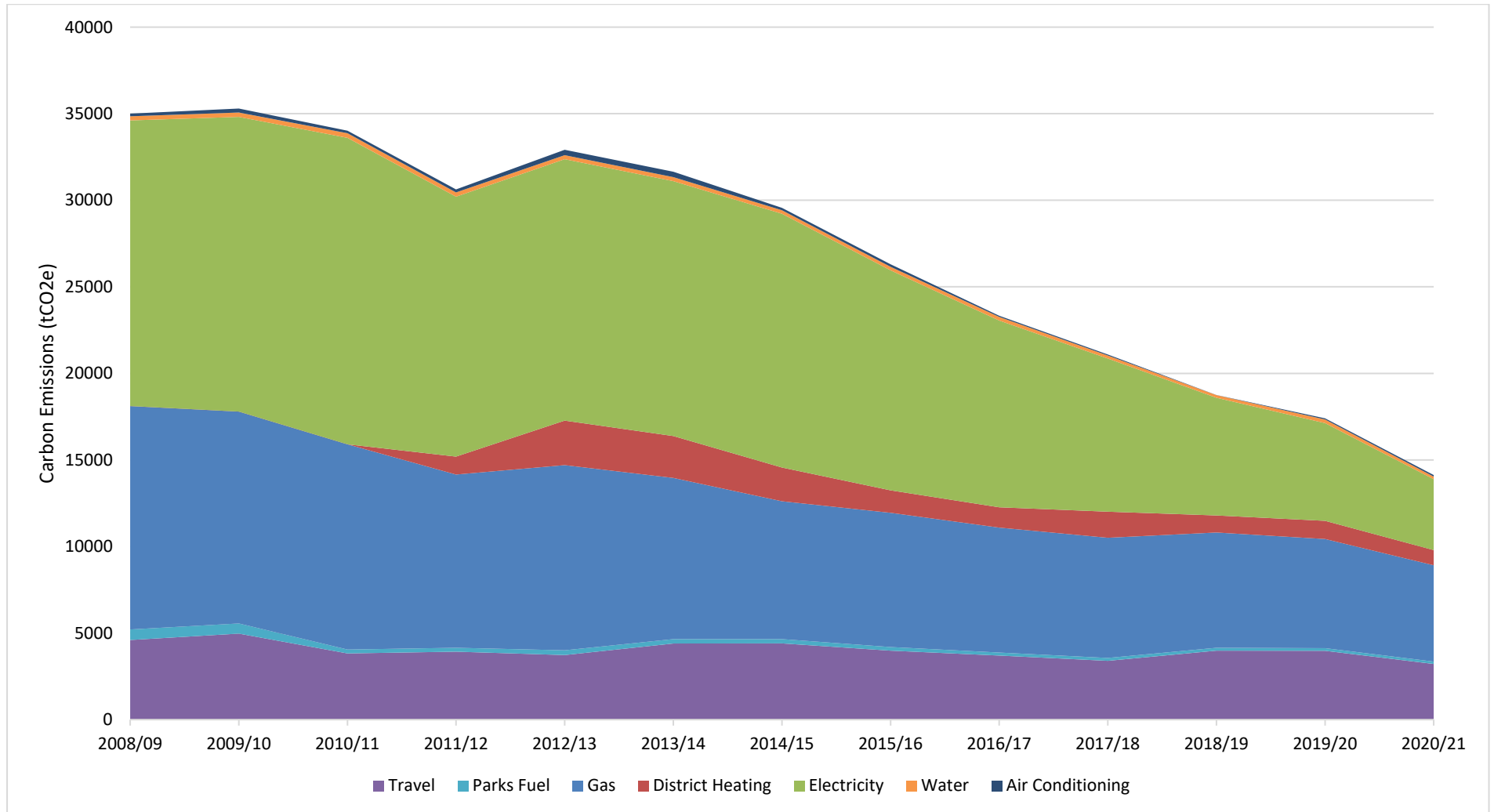
This means that the council is making significant progress towards the new ambition of achieving carbon neutrality. Carbon emissions have also reduced by 30,627 tCO₂e from the 2009/10 baseline figure, equal to 66.9%. Leicester City Council exceeded the UK Government's voluntary Emissions Reduction Pledge 2020 target of a 30% reduction in 2015/16 and has now exceeded it by 35.1%.

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 overall carbon emission rates since 2008/09, split by overall emissions source.

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	19/20	20/21
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	16,441
Carbon Offsets	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	28,388	25,187	21,756	20,073	16,441
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	-30,395
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%	-64.9%
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	-30,627
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%	-65.1%
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	3.2

Graph 1 – Changes in Leicester City Council’s CO₂e Emissions by Source from 2008/09 to 2020/21



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 emissions due to leaks of refrigerant 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 7,522 tCO₂e in 2019/20, a fall of 14.6% (1,285 tCO₂e) compared to the previous year. This is a reduction of 55.4% since the baseline year of 2008/09 and 55% since 2009/10.
- 5.1.3. The largest decreases in scope 1 emissions comes from natural gas used in council buildings, from which carbon emissions fell by 11.8% (744 tCO₂e) in 2020/21. This is largely due to the closure of many council buildings due to the lockdown, particularly offices and leisure centres. Some of the reduction is also due to ongoing work to increase the energy efficiency of the council's estate. Emissions also fell significantly from the council's own vehicles over the year, by 24.4% (558 tCO₂e). This is largely due to reduced travel need due to the pandemic during the year, but also reflects the increasing proportion of low and zero emission vehicles in the fleet.
- 5.1.4. Emissions also fell by 8.7% (13 tCO₂e) from other fuel use by Parks machinery, although this remains a very small part of the overall footprint. Emissions from air-conditioning leakage increased this year, by 47% (29.4 tCO₂e), although this is also a small contributor to the overall footprint. This increase is due entirely to mechanical failure in which two specific units lost some of their refrigerant.

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
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	5,564
	LPG ²	28	25	21	26	16	29	2	6	0	5	1	1	2
	Petrol	53	54	35	27	37	35	37	38	22	18	18	22	15
	Diesel	529	510	175	166	225	193	210	170	150	146	147	126	119
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	1,730
Fugitive Emissions	Air Conditioning	150	233	148	176	314	309	135	147	61	52	8	63	92
	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

² LPG, Petrol & Diesel are included separately in this table, as this represents fuels used in Parks machinery and vehicles.

5.2 Scope 2 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 they occur at sources not owned or controlled by the council. This includes all of the electricity that the council purchases including the electricity used to run Leicester's street lighting and traffic signalling. Scope 2 emissions also include those created in generating the hot water 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 2020/21 financial year, dropping by 22.1% (1,955 tCO_{2e}) compared to last year, and have decreased by 76.2% on the council's baseline of 2008/09 and 76.5% on 2009/10. A partial reason for the large fall since the baseline years is the separation of transmission and distribution emissions from electricity supplied into the scope 3 section of the budget from 2016/17, although the large majority of the reduction is due to the factors detailed below.
- 5.2.3 The largest fall in scope 2 emissions this year comes from electricity use within council buildings, from which emissions fell by 27.5% (1,433 tCO_{2e}). About half of this reduction is due to a fall in the 'carbon factor' of UK electricity, as renewables such as wind and solar PV continue to replace coal-fired power generation. Much of the rest of the reduction is a result of the local lockdowns, with a significant fall in building usage by council staff. Work is also underway to increase the energy efficiency of various council buildings, and a number of buildings have their own solar PV panels, directly supplying clean energy. Electricity emissions from street lighting also fell significantly, by 13.4% (348 tCO_{2e}), mostly due to the falling 'carbon factor' of electricity, as well as ongoing work to replace older lighting with LEDs.
- 5.2.4 Emissions from the council's use of Leicester's district heating system have also fallen this year, by 16.6% (174 tCO_{2e}). As with gas and electricity, this is generally due to a reduction in building usage and heating requirements. The 'carbon factor' of the heat provided by the system also fell this year, contributing to the reduction.

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
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
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	3,771
	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	1,817
	Traffic Signalling	1,508	1,552	1,569	1,519	1,534	1,517	1,574	1,381	952	766	605	511	435
	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	6,898

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, but which do not come under scope 2. This includes emissions from transport related activities (including grey fleet and business travel), water consumption (from the energy used to provide and treat water to 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 also fallen significantly this year, by 18.2% (369 tCO_{2e}). Emissions appear to have increased 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.
- 5.3.3 The largest source of reductions this year is from transport, led by a 54.3% (226 tCO_{2e}) fall in grey fleet emissions (employees using their own vehicles for work travel). Emissions from business travel also fell by 32.3% (9.8 tCO_{2e}). These reductions are generally a result of changes due to the pandemic, with varying levels of reductions in staff and service user travel requirements. Emissions from passenger travel did increase by 4.8% however, this is largely due to a change in the way figures are collected.
- 5.3.4 Emissions also fell significantly from electricity transmission and distribution, by 21.8% (145 tCO_{2e}) in total. As reported for Scope 2 emissions this is due to a combination of a reduction in emissions factors and reduction in electricity consumption. Emissions also fell by 28.5% (61 tCO_{2e}), from water supply and treatment (specifically from the energy required for these processes) due to a large fall in actual water usage, again due to reduced use of council buildings.
- 5.3.5 Data is not currently collected for emissions from 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 reported here also does not include Scope 3 emissions from services commissioned through outsourced contracts except passenger transport, from manufacture or transport of purchased goods and materials or from waste disposal as time constraints and data complexities make it prohibitive to collect and calculate these.

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
Transport Related	Grey Fleet Travel	825	775	737	677	653	651	541	515	531	401	394	417	191
	Business Travel	69	38	54	61	74	322	457	418	359	447	44	30	17
	Passenger Transport ³	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1,068	1,091	1,143
Purchased Electricity - Transmission & Distribution ⁴	Buildings	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	895	757	534	442	324
	Street Lighting	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	348	293	198	177	156
	Traffic Signals	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	86	72	52	43	37
Water	Supply	68	82	87	80	75	76	67	67	70	58	50	69	50
	Treatment	170	168	180	164	155	157	137	138	145	119	104	143	102
	Total	1,132	1,062	1,059	982	958	1,207	1,201	1,137	3,289	2,927	2,973	2,413	2,021

³ Emissions not previously calculated until 2018/19

⁴ Emissions not calculated separately until 2016/17. Previously included in electricity use under scope 2.

6. Approach

This report follows the Government's guidance⁵ 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 Government-set 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 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. These are covered in our report on Leicester's city-wide carbon footprint.

The report does not cover emissions generated by outsourced service providers in operating public services on behalf of the council, except certain passenger transport services. 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

Following Leicester City Council's declaration of a Climate Emergency in 2019, an ambition has been set to achieve carbon neutrality in the city and for the council by 2030.

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

⁵ 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>

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. It is not yet clear if the pledge will be updated for future years.

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 2020/21 figures in this report were calculated using the UK Government's published greenhouse gas conversion factors for 2020. 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-2020>

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, purchase of carbon offsets will not be considered 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/climate-emergency/>

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