



Lewisham Council

Corporate Carbon Reporting 2022/23

1 Introduction

- 1.1 Lewisham's Climate Emergency Action Plan was published in 2020¹. 'Leading by Example' was one of 5 themes within the Action Plan, underlining the importance of the Council's commitment to climate action through decarbonising its own operations.
- 1.2 The ambition for the Council and borough to be net zero carbon by 2030 is hugely stretching. This report is part of the evidenced-based approach that will be essential in focussing the resources needed to deliver on this ambition and inform Council decision-making.
- 1.3 Action 1.1.2 under the 'Leading by Example' theme is:
Publish an annual 'Corporate Use of Resources' statement setting out performance in relation to corporate carbon emissions, energy consumption, water, waste & recycling, paper use, staff travel, procurement, IT (information technology) and other environmental indicators.
- 1.4 This report presents carbon emissions resulting from electricity, gas and water consumption across the Council's corporate buildings, schools, leisure centres, as well as fuel consumption associated with the Council's fleet. The methodology for calculating emissions has been based on the Local Partnerships Greenhouse Gas reporting tool² in line with an agreement on good practice for carbon reporting established through the London Council led Emission Accounting Working Group in 2021. Further information about the methodology and recommendations for future development are set out in section 3 below and Annex 1 at the end of the document.
- 1.5 All carbon data is presented as tCO₂e, tonnes of carbon dioxide 'equivalent', based on carbon factors in the Local Partnerships reporting tool for carbon dioxide and, where relevant, other greenhouse gases converted into carbon dioxide.
- 1.6 The data presented in this report covers the period 2018/19 to 2022/23.

¹ <https://councilmeetings.lewisham.gov.uk/documents/s81350/Climate%20Emergency%20Action%20Plan.pdf>

² <https://localpartnerships.org.uk/greenhouse-gas-accounting-tool/>

2 Analysis

- 2.1 The Council's corporate carbon emissions have fallen significantly over the last decade. In 2014/15³ the Council reported 45,383 tCO₂e from corporate buildings, schools and fleet. The latest total in 2022/23 is 12,378 tCO₂e. Changes in reporting methodology mean caution is needed in making detailed comparisons between datasets, but it is clear there has been a large overall reduction.
- 2.2 Factors driving that reduction include decarbonisation of the national electricity grid, local improvements to buildings, equipment and fleet, a decrease in the size of the Council's staffing, rationalisation of the Council's portfolio of buildings, and changes to working patterns post-COVID.
- 2.3 The data set for the past five years shows a reduction in emissions of just over a quarter. Emissions from electricity, gas, water and fleet have all fallen with electricity making the biggest contribution with a 43% reduction since 2018/19.

Table 1: Corporate carbon emissions 2018/19-2022/23

Carbon emissions by source (tCO ₂ e)	2018/19	2019/20	2020/21	2021/22	2022/23	Annual Change
Catford complex	1,667	1,537	1,076	1,075	1,051	-2%
- Gas	651	713	606	620	609	
- Electricity	1,012	819	467	452	441	
- Water	5	6	3	2	2	
Other operational buildings	2,054	1,845	1,562	1,539	1,485	-4%
- Gas	1,266	1,185	1,107	1,079	1,071	
- Electricity	766	644	441	455	408	
- Water	23	17	13	5	6	
Schools	5,906	5,715	5,054	5,378	4,945	-8%
- Gas	3,398	3,449	3,275	3,468	3,299	
- Electricity	2,507	2,265	1,739	1,889	1,626	
- Water	1	2	40	21	20	
Leisure Centres	3,561	3,190	678	2,134	2,040	-4%
- Gas	1,963	1,924	574	1,337	1,366	
- Electricity	1,575	1,236	101	787	662	
- Water	23	31	3	10	12	
Streetlights	1,266	1,124	962	966	899	-7%
Fleet fuel consumption	2,349	2,236	1,872	1,870	1,959	+5%
Total	16,804	15,647	11,204	12,962	12,378	-5%

- 2.4 In 2022/23 the Council's overall emissions reduced by 5% compared to the previous year. Reduced electricity and gas consumption in schools were the biggest contributors to this fall, followed by reductions associated with electricity in leisure centres, streetlights and other operational buildings.

³ <https://tinyurl.com/vu7ehmwa>

- 2.5 Emissions associated with the Catford Complex⁴ fell significantly during Covid as national restrictions and the use of remote technology changed working patterns for many office and other buildings. This reduction has been maintained despite an increase in workforce returning to the office. In 2022/23 gas consumption fell slightly as did emissions associated with electricity despite a 7% increase in electricity consumption (see Table 2). This pattern was reflected in the Council's other operational buildings.
- 2.6 School gas and electricity consumption both fell by 5%, resulting in a 5% reduction in gas emissions and 14% in electricity emissions when reductions to the carbon intensity of the electricity grid are factored in. No direct cause of this reduction in consumption has been identified with a pattern of varied energy use across the school estate. A note on data quality issues is included in the Annex on methodology at the end of this document. Other factors that may have contributed to reducing consumption were significant increases in energy costs and local action by schools to reduce the impact on budgets, energy efficiency and heat decarbonisation works implemented at several schools under the Public Sector Decarbonisation Fund, and training workshops for school premises managers on energy saving that ran from 2022/23.
- 2.7 Emissions for leisure centres reduced by 4% in 2022/23. A 16% decrease in emissions from electricity consumption was offset by increased gas and water consumption, potentially as a result of new cleaning routines as the leisure industry emerged from COVID restrictions.
- 2.8 Emissions associated with the Council's fleet also fell significantly during COVID as a result of restrictions to some services, and have subsequently increased although in 2022/23 were 7% below the data for 2018/19. This is as a result of improvements to efficiency of vehicles as part of replacement policy including switching some of the fleet from petrol/diesel to electric.
- 2.9 Streetlighting saw a 2% increase in electricity consumption in 2022/23 due to additional lighting columns being added, however the overall carbon emissions were down 7% as a result of electricity grid decarbonisation.

⁴ This is the Council main set of buildings in Catford including Laurence House, the Civic Suite, Old Town Hall, Town Hall Chambers and Broadway Theatre

Table 2: Council energy/water consumption by source

Consumption by source	2018/19	2019/20	2020/21	2021/22	2022/23	Annual Change
Catford complex electricity (kWh)	3,574,007	3,203,458	2,004,735	2,130,117	2,278,525	7%
Catford complex gas (kWh)	3,535,881	3,876,452	3,298,335	3,384,633	3,333,686	-2%
Catford complex water (m3)	13,400	16,350	7,512	16,393	12,788	-22%
Other operational buildings electricity (kWh)	2,705,242	2,518,953	1,893,415	2,141,798	2,110,009	-1%
Other operational buildings gas (kWh)	6,878,920	6,443,291	6,018,733	5,893,247	5,864,829	0%
Other operational buildings water (m3)	65,439	49,323	39,029	34,158	43,528	27%
Schools electricity (kWh)	8,855,030	8,859,685	7,457,821	8,895,971	8,408,115	-5%
Schools gas (kWh)	18,468,512	18,758,238	17,813,992	18,933,544	18,070,068	-5%
Schools water (m3)	-	-	115,498	141,703	135,838	-4%
Streetlights (kWh)	4,472,480	4,396,435	4,127,890	4,549,386	4,646,455	2%
Fleet fuel consumption	899,169	866,637	737,878	747,229	769,316	3%
Leisure Centres electricity	5,563,629	4,834,103	431,442	3,705,702	3,424,079	-8%
Leisure Centres gas	10,668,773	10,464,648	3,123,226	7,301,855	7,480,995	2%
Leisure Centres water	67,219	89,038	9,196	67,270	80,181	19%

2.10 Carbon emissions associated with corporate electricity use have fallen 43% since 2018/19, gas by 13% and fleet by 17%. In 2018/19 gas was 43% of the Council's overall corporate

carbon footprint with electricity 42%. In the latest year of data 2022/23 gas is now 51% and electricity 33%.

- 2.11 Table 3 below shows the top sources of emissions across the data included in this report in the latest year of data.

Table 3: Corporate sources for scope 1 and 2 carbon emissions in 2022/23 in order of highest emitter

Rank	Source	tCO2e	% Annual Change	Actual change tCO2e
1	Schools gas	3,299	-5%	-169
2	Fleet	1,959	+5%	89
3	Schools electricity	1,626	-14%	-263
4	Leisure Centres gas	1,366	+2%	28
5	Other operational gas	1,071	-1%	-9
6	Street lighting	899	-7%	-67
7	Leisure Centres electricity	662	-16%	-125
8	Catford complex gas	609	-2%	-11
9	Catford complex electricity	441	-3%	-12
10	Other operational electricity	408	-10%	-47
11	Schools water	20	-4%	-1
12	Leisure Centres water	12	+19%	2
13	Other operational water	6	+27%	1
14	Catford Complex water	2	-22%	-1

- 2.12 Gas in schools is the largest source of carbon emissions, representing 27% of the total emissions reported. The Council's fleet is the second highest source at 16%, followed by schools' electricity (13%), leisure centre gas (11%) and gas from other operational buildings (9%).
- 2.13 In June 2023 the Government published the latest annual local authority area-wide carbon emission data⁵ covering the period from 2005 to 2021. Emissions in the borough of Lewisham have fallen 44% on this measure to 667,808 tCO2e⁶. Lewisham's corporate carbon emissions in 2022/23 represent 1.9% of this total⁷.
- 2.14 The Council's housing stock, as domestic emissions, is outside the scope of this report. Most tenants manage their own utility contracts and this data is not available to the Council. The emissions associated with the Council's housing stock can however be estimated at 35,894 tCO2e⁸. The Council's combined corporate and housing emissions are 7% of the Government's reported emissions for the borough.
- 2.15 The Council's emissions associated with its wider supply chain, the purchase of goods and services as part of the delivery of the Council's functions are outside the scope of this report. The Council's climate emergency action plan commits the Council to further work to calculate and report these emissions, which could be 10 times the amount of those included in this report.

⁵ <https://www.gov.uk/government/statistics/uk-local-authority-and-regional-greenhouse-gas-emissions-national-statistics-2005-to-2020>

⁶ This figure is from the CO2e dataset, as opposed to the Greenhouse Gas dataset, also provided by the UK government. The 44% reduction is calculated by dividing the 2005 emissions, 1,188 tCO2e, by the 2021 emissions, 667 tCO2e and subtracting one.

⁷ This is calculated by dividing the 2022/23 figure for Lewisham corporate emissions, 12,378 tCO2e, by the 2021 figure for whole borough emissions, 667,808 tCO2e.

⁸ This figure is estimated using modelled data calculated through the Parity Project Portfolio software.

3 Recommendations for future reporting

3.1 Fully understanding the Council's environmental impact requires investment to expand the scope of data collection and data quality. This should include:

- Accelerated investment in smart metering to automate energy and water consumption across the corporate and schools' estate
- Increasing capacity and improving systems in the corporate energy team to improve data collection and analysis
- Extending carbon reporting to cover the Council's wider supply chain including more sites where third parties deliver services from Council-owned sites.
- Reporting the outcome of the staff travel survey and integrating this into future analysis of the Council's carbon and environmental impact
- Recording volumes of waste and recycling from corporate buildings as well as from schools.
- Develop a system for regular collection of carbon emission data for the Council fleet and expand this to include emissions associated with electric vehicle mileage.

Annex 1 Methodology

1. The report presents data from the five financial years from 2018/19, to 2022/23. Consumption data (kWh and m3) is converted to tonnes of CO₂e or 'tCO₂e' using published conversion factors. The 'e' refers to 'equivalent', which refers to other greenhouse gases with an equivalent greenhouse effect to carbon.
2. The report is based on the Greenhouse Gas Protocol⁹ definition of emission scopes and used the carbon factors set out in the Local Partnerships Greenhouse Gas reporting tool¹⁰ in line with an agreement on good practice for carbon reporting established through the London Council led Emission Accounting Working Group in 2021. The Greenhouse Gas Protocol scope definitions are set out below in Table 4:

Table 4: Greenhouse gas emission inventory definitions

Scope	Definition
Scope 1	GHG emissions from sources located within the city boundary
Scope 2	GHG emissions occurring as a consequence of the use of grid-supplied electricity, heat, steam and/or cooling within the city boundary
Scope 3	All other GHG emissions that occur outside the city boundary as a result of activities taking place within the city boundary

3. The focus of this report is primarily scope 1 and 2 emissions due to the availability of data. The Council's leisure centres are operated by a third party under a contract and so should be considered scope 3 emissions but have been treated as scope 1 and 2 as the provision of leisure services would be considered a core Council function by the vast majority of the facilities and the data is available.
4. Where new data has been identified following previous reporting that data has been integrated into the whole dataset including for previous years to allow comparisons to be made. Further work with the depot at Wearside has substantially increased the carbon emissions associated with the Council's fleet and this information has been integrated into all previous years. This approach to data will account for any differences between the data published in this report and previous corporate carbon reporting.
5. The analysis of schools' data has identified significant gaps in data for a number of the meters within the portfolio of schools. Further investment in smart metering is planned which will improve financial as well as environmental monitoring. Where gaps in data have been identified data has been averaged using the most complete year available to avoid any under reporting of consumption.
6. Other data cleansing that has been done includes removal of individual meters or sites where the operation of the building is by a third party and the data is not part of the Council's corporate contracts, closed sites, and small sites with highly erratic data.
7. Due to changes in the water contracts the quality of water data was poor. New meters and data processes are being established under the new contract and it is expected that there will be significantly better data for 2023/24 and going forwards. Although water consumption is a meaningful part of the overall carbon consumption this new data is not expected to materially change the overall picture.

⁹ <https://ghgprotocol.org/>

¹⁰ <https://localpartnerships.org.uk/greenhouse-gas-accounting-tool/>

8. Gas meters across the corporate and schools' estate are expected to be upgraded to be smart meters over the next two years and electricity meters shortly after that.
9. A staff travel survey was completed in 2022/23 and the results of this will be included in future reporting.
10. Data has been used from the following sources
 - Electricity, gas and water data for corporate sites and schools are all sourced from the Council's energy management software SystemsLink.
 - Street Light data from electricity invoices
 - Fleet data fuel consumption data for petrol and diesel vehicles
 - Leisure Centre estate data provided by GLL (Greenwich Leisure Ltd.)

Table 5. List of corporate sites used

2000 Community Action Centre***
Amersham Childrens Centre Annex (Lewisham Portage) ****
Barnes Wallis Community Centre***
Bellingham Gateway Youth and Community Centre
Bellingham Leisure and Lifestyles Centre*****
Bridge Leisure Centre*****
Broadway Theatre***
Brockley Cemetery****
Brockley Grove Depot****
Brockley Rise Centre – CEL
Champion Hall
Children with Disabilities - 45 Bromley Road***
Community Opportunity Services - 200 Kirkdale
Corbett Library, The (Formerly Torridon Road Library)***
Deptford Adventure Playground (Richard MacVicar Adventure Playground)
Downham Health and Leisure Centre*****
Dumps Adventure Playground*****
Eros House 1-1a
Evelyn Children's Centre
Evelyn Community Centre
Forest Hill Pools*****
Glass Mill Leisure Centre*****
Granville Park*
Granville Park CEL aka Ravensbourne AEI
Grove Park CEL (was Corporate Office)
Grove Park Cemetery Incl. Lodge
Hillcrest Clubroom
Hither Green Cemetery****
Holbeach Probation Services
Home Park Adventure Playground*
Honor Oak Adventure Playground****
Honor Oak Community Centre - 50 Turnham Road***
Honor Oak Youth Club****
Ladywell Arena*****
Ladywell Cemetery****
Ladywell Cemetery Lodge*
Ladywell Day Centre
Ladywell Early Years Centre

Ladywell Fields Adventure Playground ****
Landmann Way Recycling Centre*
Laurence House
Leaving Care Team - 43 Bromley Road****
Leemore Resource Centre
Lewisham Coroner's Court & Mortuary
Lewisham Crematorium and Chapel
Lewisham Indoor Bowls*****
Lewisham Library
Lewisham Registry Office
Lewisham Town Hall – Chambers*
Lewisham Town Hall - Civic Suite
Library Resource Centre
Meliot Centre / Vansittart Street 26***
Mulberry Community Centre
Northover Support / Resource Centre
Riverside Youth Club
Rockbourne Youth Club
Saville Day Centre
Scotney Hall
Sedgehill Community Centre aka HappyDays
Social Inclusion and Recovery Service (Formerly Compass Day Centre)****
Sydenham Centre
TNG Youth and Community Centre
Wavelengths Leisure Centre*****
Wavelengths ICT Comms. Room *
Wearside Service Depot
Woodpecker Youth Club

* Electricity only

** Gas only

***Electricity and gas only

****Electricity and water only

*****Gas and water only

*****Electricity, gas and water

Table 6. List of school sites used

Abbey Manor College (Ladywell) *****
Abbey Manor College (Lee) *****
Adamsrill - Primary School*****
Addey and Stanhope - Secondary School*****
All Saints Church of England Primary School*****
Ashmead Primary School*****
Athelney Primary School*****
Baring School - Primary School***
Beecroft Garden - Primary School (was Brockley) *****
Brent Knoll Special School*****
Brindishe Green (formerly Hither Green) Pri Sch*****
Brindishe Lee - Primary School*****
Brindishe Manor - Primary School*****

Chelwood Nursery School*****
Childeric - Primary School***
Christ the King: Aquinas (was Crossways 6th Form)***
Clyde Nursery School***
Coopers Lane Primary School*****
Dalmain Primary School*****
Deptford Park Primary School***
Downderry Primary School*****
Edmund Waller Primary School*****
Elfrida Primary School*****
Eliot Bank Primary School*****
Fairlawn Annexe - Primary School****
Fairlawn Primary Schoo *****
Forster Park Primary School***
Good Shepherd Catholic Primary School*****
Gordonbrock Primary School*****
Grinling Gibbons Primary School*****
Haseltine Primary School*****
Holbeach - Primary School*****
Holy Cross RC - Primary School*****
Holy Trinity Sydenham CE – Primary School*****
Horniman J & I School - Primary School*****
John Ball J & I School - Primary School/Nursery*****
John Stainer - Primary School*****
Kelvin Grove - Primary School*****
Kender - Primary School*****
Kilmorie Primary School & PDC***
Launcelot – Primary School ***
Lucas Vale - Primary School***
Marvels Lane - Primary (Junior) School***
Myatt Garden - Primary School*****
New Woodlands School*****
Our Lady & St Philip Neri RC - Primary School***
Perrymount - Primary School*****
Rangefield - Primary School*****
Rathfern - Primary School*****
Rushey Green - Primary School*****
Sandhurst - Junior and Infants School
St Augustines RC - Primary School*****
St George's CE Primary School (was Christ Church)***
St James Hatcham CE - Primary School*****
St John The Baptist CE - Primary School***
St Josephs RC - Primary School***
St Margaret's Lee C of E - Primary School*****
St Mary Magdalen RC - Primary School***
St Mary's CE - Primary School*****
St Michaels Sydenham CE - Primary School*****
St Saviours RC - Primary School*****

St Stephens CE - Primary School***
St William of York RC - Primary School*****
St Winifreds Catholic Primary School*****
Stillness - Junior and Infants School*****
Sydenham School, Dartmouth Road*****
Torridon - Junior and Infants School*****
Turnham Academy ***
Twin Oaks Primary*****
Watergate School

* Electricity only

** Gas only

***Electricity and gas only

****Electricity and water only

*****Gas and water only

*****Electricity, gas and water