

London Borough of Sutton

Greenhouse Gas Emissions

Report

Reporting year 2021/22

take part, take pride



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1. Introduction

1.1. Purpose of the report

This report satisfies the requirement for local authorities to measure and report their greenhouse gas emissions, as set out by the Department for Communities and Local Government single data list.

1.2. Quality assurance statement

The council's Internal Audit team has conducted a review of the methodology for calculating the authorities GHG emissions and no qualifications have been raised.

1.3. Organisational Goals

The London Borough of Sutton has a long standing history of taking action to improve the environment. In 2019 the council published its Environment Strategy as well as declaring a climate emergency. The Environment Strategy was updated in 2020, to incorporate a Climate Emergency Response Plan.

The vision of the [Environment Strategy and Climate Emergency Response Plan](#) is for Sutton to become London's most sustainable borough. This includes a commitment to achieving net zero carbon emissions, both across the council's own operations and across the borough. The council updates the Climate Emergency Response Plan annually, with the last update being published in Autumn 2021.

1.4. GHG Target

The council aims to achieve net zero carbon emissions across its estate. We will reduce emissions as far as possible through mitigation before undertaking offsetting activities. The target is for scopes 1,2 and 3.

1.5. Responsible Officers

Mark Norrell, Assistant Director of Asset Management, Planning & Capital Delivery and Paul Algeo, Head of Programme & Projects Management, are responsible for meeting this target.

1.6. Company Information

The London Borough of Sutton is a local authority in Greater London, one of 32 London boroughs. The main council offices are its Civic Offices which are located at:

St. Nicholas Way
Sutton

1.7. Reporting Period

The reporting period used for this report is '2021', 1 April 2021 – 31 March 2022.

1.8. Quantification and Reporting Methodology

We have followed the 2013 DEFRA guidance 'Environmental Reporting Guidelines'. This guide is designed to help businesses measure and report their environmental impacts, including greenhouse gas emissions.

We have also used 2021 UK Government Conversion Factors for greenhouse gas reporting.

Using the methodology above, greenhouse gas emissions are reported and converted into a CO₂ equivalent (CO₂e)

2. Scope

2.1. Organisational Boundary

The operations from which we collect data are those over which the Local Authority has financial control (i.e. has the ability to direct their financial and operating policies). Consequently, data from schools with academy status, social housing and properties let for commercial operations are excluded. Data from wholly owned subsidiaries of the council has also not been included.

2.2. Operational Scopes

We measure emissions from activities under scopes 1, 2 and, to a limited extent, scope 3 as shown in Table 1.

Table 1: Declaration of reported emission-releasing activities

Council activity giving rise to significant carbon emissions	Scope	Reported in 2020/21
Parks Maintenance (vehicles/equipment not owned or controlled by LA)	3	Yes
Premises* energy consumption (liquid and gaseous fuels)	1	Yes
Premises* fugitive emissions (air conditioning leaks)	1	No
Premises* energy consumption (purchased electricity)	2, 3	Yes
Owned transport	1	Yes
Staff business travel (vehicles not owned or controlled by LA)	3	Yes
Street lighting, traffic lights, signs and bollards (purchased electricity)	2, 3	Yes
Waste Collections (vehicles not owned or controlled by LA)	3	Yes

*Our premises include maintained, voluntary aided and foundation schools, offices, libraries, day care centres, youth centres and community centres

3. Results

3.1. Headline results for 2021/22

- 3.1.1. The total¹ net GHG emissions from our own operations in 2021 was 7,605 tonnes CO₂e, which is 56% lower than the 2008 base year emissions.
- 3.1.2. Our GHG emissions from scopes 1 and 2 activities have decreased by 62% (9,912 tonnes) compared to the base year. By scope, the changes from 2008 to 2021 were:
- Scope 1 emissions decreased by 50%
 - Scope 2 emissions decreased by 68%
- 3.1.3. Our overall intensity ratio which measures emissions per m² has also reduced by 55% compared to the 2008 base year. This ratio allows us to measure changes which are due to reductions in consumption as opposed to changes in the size or number of properties within our portfolio.

¹ This includes emissions from Scopes 1, 2 and 3 as well as out of scope emissions

3.2. Results by scope and activity

Table 2: GHG emissions by scope for current period and baseline year

	Tonnes of CO ₂ e	
	2021	Base Year 2008
Scope 1	3,039	6,095
Scope 2	3,156	10,012
Scope 3	1,348	1,010
Outside of Scope	62	6
Total gross emissions	7,605	17,123
Intensity measurement Scopes 1 & 2 'Kilograms of CO ₂ e per sq m of GIA	32.02	70.95

Table 3: GHG emissions by source activity for the year 2021 (1 April 2021 to 31 March 2022)

Scope/Activity	Units	Amount of data that is estimated	Consumption	GHG Emissions (tonnes CO ₂ e)
Scope 1 emissions				
Gas Boilers	kwh	3%	16,407,671	3,005,229
Diesel	litres		12,550	31,530
Petrol	litres		961	2,108
Scope 2 emissions				
Electricity - Premises	kwh	<1%	10,456,703	2,220,272
Electricity - Street Lighting	kwh		4,405,012	935,316
Scope 3 emissions				
Business Travel	km		374,494	64,218
Waste Collection	litres		400,805	1,004,743
Transmission & Distribution	kwh		14,861,715	279,252

Table 4: Annual GHG emissions for all years measured

	Tonnes of CO ₂ e													
Category	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	Base Year 2008
Scope 1	3,039	2,671	3,250	3,352	3,338	4,316	4,568	4,778	4,770	5,198	4,444	5,426	5,450	6,095
Scope 2	3,156	3,295	4,026	4,538	5,857	7,186	8,458	8,888	8,384	8,162	8,398	9,535	10,100	10,012
Scope 3	1,348	1,335	1,491	1,599	1,856	781	832	930	875	822	914	979	1,025	1,010
Outside of Scope	62	45	37	25	30	1	2	1	2	22	6	28	6	6
Gross emissions	7,605	7,346	8,803	9,514	11,081	12,285	13,860	14,597	14,030	14,204	13,762	15,968	16,580	17,123
Kg of CO ₂ e per sq m of GIA	32	31	38	41	45	53	60	63	59	59	56	65	69	71

3.3. Data Explanations

As the restrictions imposed by the government in response to the COVID-19 pandemic were lifted, it was expected that the Council's emissions would increase in 2021/22 from the levels recorded in 2020/21. This has indeed happened, although they are still below pre-pandemic levels. Contributing to these lower emissions is the fact that employees continue to split their time between working from home and the office under a new hybrid-working model implemented by the Council. Additionally, the Council's second largest office building remains closed and so emissions from this site have also reduced.

Increased activity in both schools and leisure centres have been the main factors contributing to increased emissions compared to the previous year. Both categories had been required, under the restrictions, to be closed or to operate under reduced opening hours/capacity for certain periods during 2020/21 and were re-opened in 2021/22. There was only a 1% increase in consumption of gas in 'other' buildings when compared with leisure centres (27%) and schools (7%). There was a 7% increase in consumption of gas in 'other' buildings when compared with leisure centres (18%) and schools (17%).

When compared to the base year, consumption of gas (scope 1) decreased across the estate by 28% in total, resulting in a 32% reduction in GHG emissions. Maintained schools reduced their emissions by 41% and corporate buildings decreased by 22%.

Emissions from owned transport (scope 1) reduced by 98%. This follows the outsourcing of the Waste Collection and Street Cleaning (April 2017) and Parks Maintenance (February 2017) services. The emissions from fuel combustion generated by the contractors delivering these services are reported under scope 3.

The CO₂e factor for electricity has decreased by 57%² when compared to the base year. This has enhanced the reduction in emissions from electricity consumption under scope 2. Street lighting and corporate buildings have reduced consumption by 34% since 2008 with a corresponding 72% reduction in emissions. Schools' consumption on the other hand has increased by 7%, but due to favourable factors, emissions have reduced by 54%.

² In the 2019 GHG Conversion Factors, there was a 10% decrease in the UK Electricity CO₂e factor compared to the previous year. In the 2020 update, the CO₂e factor decreased (compared with 2019) again by 9%. In the 2021 update, the CO₂e factor has again decreased by 9% (in comparison to the 2020 update). The above decreases are all due to a decrease in coal use in electricity generation and an increase in renewable generation

4. Actions aimed at reducing consumption and emissions

Listed below are some of the projects completed during the year which have both energy and carbon saving benefits. In some cases, as with the LED upgrades, the projects also have the further advantage of extending the operating life of the asset.

- Phase 1 of the Civic Offices lighting upgrade - installation of LED fittings into trial areas of the Civic and Central library was completed in Autumn 2021. Phase 2 starting in Winter 2021 through to completion during Autumn 2022
- Smart meters continue to be installed throughout the estate with 25 being installed in 2021/22.
- An application during 2021/22 to the Neighbourhood Fund was successful and a new LED lighting system will be installed into the Trinity Square underpass connecting the Civic Offices to the Town Centre in Autumn 2022.
- Decarbonisation Surveys were undertaken in our Top 10 consuming Corporate buildings during Autumn 2021. The reports will provide a roadmap to zero carbon highlighting energy and carbon saving technologies which can be implemented.
- An application for £90K was successful in Jan 2021 and a rolling programme of Investment Grade Audits of each corporate site will be implemented in Spring 2021.

Our building management team continues to monitor and optimise the building performance for energy efficiencies.

5. Additional Information

5.1. Recalculation Policy

We have a fixed base year of 2008 which was chosen in line with reporting requirements for National Indicator 185: “Carbon emissions from Local Authority Estate and Operations”. We have continued to use this baseline to allow the comparison of data with previous reporting.

Our base year calculation policy is to recalculate the base year and the prior year emissions for relevant significant changes. This is defined as changes which meet our significance threshold of 5% of total base year emissions.

Schools in the borough continue to convert from maintained (Community) to non-maintained (Academy) status. If a school converts from maintained to non-maintained within the reporting year, it will be considered out of scope and will not be included in results. In order to ensure we compare on a 'like for like' basis, any school that is not included in the current reporting year will also be removed from the 2008/09 baseline and subsequent years.

As there were no significant changes to the estate during the reporting year and the number of schools with Academy status remained at 35, emissions have not been recalculated this year.

5.2. Intensity Measure

We have chosen 'kilograms of CO₂e per square metre of gross internal area (GIA)' as this is a common activity ratio in our sector.

5.3. Carbon Offsets

We have not purchased any carbon credits.

5.4. Green Tariffs

All electricity purchased by the Council is supplied through the LASER consortium (public sector energy buying group) on a green energy tariff, meaning it is generated from renewable resources. However, this tariff does not meet the criteria set out by OFGEM and as such, is not exempt from the climate change levy.