

London Borough of Sutton

Greenhouse Gas Emissions

Report

Reporting year 2020/21

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 our [Environment Strategy and Climate Emergency Response Plan](#) is to become London's most sustainable borough. We have also committed to achieving net zero carbon emissions, both across the council's own operations and across the borough.

1.4. GHG Target

The council aims to achieve zero carbon emissions. We will reduce emissions as far as possible through mitigation before offsetting. 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 Civic Offices are located at:

St. Nicholas Way
Sutton
Surrey
SM1 1EA

1.7. Reporting Period

1 April 2020 – 31 March 2021

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 used 2020 UK Government Conversion Factors for greenhouse gas reporting.

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 Academy schools, social housing and properties let for commercial operations is excluded.

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 2020/21

3.1.1. The total¹ net GHG emissions from our own operations in 2020/21 was 7,346 tonnes CO₂e, which is 57% lower than the 2008 base year emissions.

3.1.2. Our GHG emissions from scopes 1 and 2 activities have decreased by 63% (10,141 tonnes) compared to the base year. By scope, the changes from 2008 to 2020 were:

- Scope 1 emissions decreased by 56%
- Scope 2 emissions decreased by 67%

3.1.3. Our overall intensity ratio which measures emissions per m² has reduced by 57% 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 | |
|---|-----------------------------|----------------|
| | 2020 | Base Year 2008 |
| Scope 1 | 2,671 | 6,095 |
| Scope 2 | 3,295 | 10,012 |
| Scope 3 | 1,335 | 1,010 |
| Outside of Scope | 45 | 6 |
| Total gross emissions | 7,346 | 17,123 |
| Intensity measurement Scopes 1 & 2 'Kilograms of CO ₂ e per sq m of GIA | 30.84 | 70.95 |

Table 3: GHG emissions by source activity for the year 1 April 2020 to 31 March 2021

| Scope/Activity | Units | % of data that is estimated | Consumption | GHG Emissions (tonnes CO ₂ e) |
|-------------------------------|--------|-----------------------------|-------------|--|
| Scope 1 | | | | |
| Gas Boilers | kwh | 10 | 14,380,449 | 2,644,133 |
| Diesel | litres | | 10,159 | 25,864 |
| Petrol | litres | | 452 | 980 |
| Scope 2 | | | | |
| Electricity - Premises | kwh | 3 | 9,777,249 | 2,279,468 |
| Electricity - Street Lighting | kwh | | 4,354,143 | 1,015,125 |
| Scope 3 | | | | |
| Business Travel | km | | 311,490 | 53,389 |
| Waste Collection | litres | | 392,833 | 998,557 |
| Transmission & Distribution | kwh | | 14,131,392 | 283,334 |

Table 4: Annual GHG emissions for all years measured

| Category | Tonnes of CO ₂ e | | | | | | | | | | | | Base Year 2008 |
|---|-----------------------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|
| | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 | 2009 | |
| Scope 1 | 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 | 3,295 | 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 | 1,335 | 1,491 | 1,599 | 1,856 | 781 | 832 | 930 | 875 | 822 | 914 | 979 | 1,025 | 1,010 |
| Outside of Scope | 45 | 37 | 25 | 30 | 1 | 2 | 1 | 2 | 22 | 6 | 28 | 6 | 6 |
| Gross emissions | 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 | 31 | 38 | 41 | 45 | 53 | 60 | 63 | 59 | 59 | 56 | 65 | 69 | 71 |

3.3. Data Explanations

Favourable changes in emissions in 2020/21 are largely due to the change in operations as a result of the COVID 19 global pandemic as well as favourable changes in GHG conversion factors². During the year, the majority of council staff worked from home, meaning many buildings were closed or experienced limited use.

Consumption of gas (scope 1) decreased across the estate by 37% in total, resulting in a 41% reduction in GHG emissions. Maintained schools reduced their emissions by 49% and corporate buildings decreased by 29%.

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 53% when compared to the base year. As a result, there has been increased reduction in emissions from electricity consumption under scope 2. Street lighting and corporate buildings have reduced consumption by 37% since 2008 with a corresponding 70% reduction in emissions. There was a very small reduction in consumption by

² The UK electricity factor is prone to fluctuate from year to year as the fuel mix consumed in UK power stations changes. The 2019 factor decreased by 10% compared to the previous year because there was a decrease in coal-powered electricity generation and an increase in renewable generation in 2017 (the inventory year for which the 2019 GHG Conversion Factor was derived). In this 2020 update, the CO₂e factor has decreased again (compared with 2019) by 9% due to a decrease in coal generation and an increase in renewable generation.

Schools, less than 1%, but emissions have still reduced by 53% due to lower conversion factors.

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. Phase 2 through to completion will be implemented in Autumn/Winter 2021/22.
- Smart meters continue to be installed throughout the estate with 20 being installed in 2020/21.

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, generated from renewable resources. However, they have confirmed that this tariff does not meet the criteria set out by OFGEM and as such, is not exempt from the climate change levy.