

London Borough of Sutton

Greenhouse Gas Emissions

Report

Reporting year 2016/17

take part, take pride



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

Internal Audit conducted a review of the methodology for calculating the authorities GHG emissions and no qualifications have been raised.

1.3. Organisational Goals

In 2005 the council committed to becoming a One Planet Living (OPL) borough by 2025. The aim is to become London's most sustainable suburb - a place where people want to live and work for its excellent quality of life. Our vision of sustainability embraces both environmental commitments and how we live as families and a community.

Climate change is the single biggest challenge we face and here, in Sutton, we are determined to continue making a difference. We're hugely committed to the ethos of thinking globally, but acting locally. That's why we've adopted 'One Planet Living' – a vision of a sustainable world where people lead healthy, happy lives within their fair share of the earth's resources. The aim is to ensure the borough, not just Council activities, can exist within a fair share of the world's resources and not disadvantage other communities or future generations.

The council is also a signatory of the Climate Local Commitment, publicly reaffirming the commitment to reducing CO₂ across the borough from not only buildings, but from transport and waste too.

As part of its commitment to becoming a One Planet Borough, the council set an aspirational goal of becoming a zero carbon borough by 2025. To support this, a detailed carbon management plan was produced in 2011 in collaboration with the Carbon Trust. This identified projects to reduce the council's carbon emissions.

1.4. GHG Target

The measurement of GHG emissions preceded the 2011 Carbon Management Plan by 2 years (2008/09 baseline year) and also captures emissions from activities taking place in maintained schools.

The target is to reduce scope 1 and scope 2 emissions arising from buildings by 50% by 2017 and become zero carbon by 2025.

1.5. Responsible Officers

Ade Adebayo, 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 2016 – 31 March 2017

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 2016 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 LA has financial control (i.e. has the ability to direct their financial and operating policies). Consequently, data from Academy schools and from social housing is excluded.

2.2. Operational Scopes

We measure emissions from activities under scopes 1, 2 and to a very limited extent, scope 3¹ as shown in Table 1.

¹ We do not capture any data from contractors or outsourced activities such as waste and parks services

Table 1: Declaration of reported emission-releasing activities

Council activity giving rise to significant carbon emissions	Scope	Reported in 2016/17
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 including waste collection vehicles	1	Yes
Staff business travel (vehicles not owned or controlled by LA)	3	Yes
Street lighting, traffic lights, signs and bollards (purchased electricity)	2	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 2016/17

- 3.1.1. The total net GHG emissions from our own operations in 2016/17 was 13,172 tonnes CO₂e, 32% lower than base year emissions.
- 3.1.2. Our GHG emissions from scopes 1 and 2 activities had decreased by 29% (5,397 tonnes) compared to the base year. By scope, the changes were:
- Scope 1 emissions decreased by 35%
 - Scope 2 emissions decreased by 31%
- 3.1.3. Our overall intensity ratio which measures emissions per m² has reduced by 29% compared to 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 our portfolio.

3.2. Results by scope and activity

Table 2: GHG emissions by scope for current period (2016) and baseline year (2008)

	Tonnes of CO ₂ e	
	2016	Base Year 2008
Scope 1	4,942	7,560
Scope 2	7,627	11,010
Scope 3	821	1,088
Outside of Scope	1	6
Total gross emissions	13,392	19,665
Intensity measurement Scopes 1 & 2 'Kilograms of CO ₂ e per sq m of GIA	57.92	81.81

Table 3: GHG emissions by source activity for the year 1 April 2016 to 31 March 2017

Scope/Activity	Units	%of data that is estimated	Consumption	GHG Emissions (tonnes CO ₂ e)
Scope 1				
Gas Boilers	kwh	43	20,247,188	3,725,483
Diesel	litres		474,444	1,207,642
Petrol	litres		4105	9,017
Scope 2				
Electricity - Premises	kwh	13	13,713,347	5,650,585
Electricity - Street Lighting	kwh		4,797,600	1,976,851
Scope 3				
Business Travel ²	km		701,833	131,208
Transmission & Distribution - ALL ³	kwh		18,510,947	689,903

² Travel for business purposes in assets not owned or directly operated by the organisation. Staff owned vehicles and pool/club cars are included but bus and train travel are not

³ Energy loss that occurs in getting electricity from the power plant to the purchasing organisation

Table 4: Annual GHG emissions for all years measured

Category	Tonnes of CO ₂ e								
	2016	2015	2014	2013	2012	2011	2010	2009	Base Year 2008
Scope 1	4,942	5,222	5,448	5,545	6,296	5,398	6,756	6,706	7,560
Scope 2	7,627	9,013	9,464	8,917	8,814	9,094	10,473	11,034	11,010
Scope 3	821	878	980	921	874	973	1,055	1,098	1,088
Outside of Scope	1	2	1	2	22	6	28	6	6
Gross emissions	13,392	15,115	15,893	15,384	16,005	15,471	18,312	18,844	19,665
Kg of CO ₂ e per sq m of GIA	58	66	68	65	67	63	75	78	82

3.3. Data Explanations

Changes in emissions in 2016/17 can be accounted for mainly as a result of ongoing efficiencies, changes in school status as well as favourable changes in GHG conversion factors⁴.

Consumption of gas (scope 1) has reduced across the estate by 34% in total with an equivalent reduction in GHG emissions. Maintained schools have reduced their emissions by 32% and corporate buildings by 36%.

Emissions from owned transport (scope 1) have reduced by 36%.

Electricity consumption (scope 2) in corporate buildings has reduced by 20% since 2008, with a corresponding 34% reduction in emissions. Consumption by schools has been reduced by 3% over the same period, with a corresponding 20% reduction in emissions.

4. Actions aimed at reducing consumption and emissions

Lighting projects have been completed at 5 sites to replace existing installations with LED lighting which, in addition to the energy/carbon saving benefits, has the further advantage of having extended operating life. (Civic Offices, Wallington Library, Cheam Library, Cheam Resource Centre and Gibson Road Car Park.

⁴ The UK electricity factor is prone to fluctuate from year to year as the fuel consumed in UK power stations changes. E.g. 2014/15 factor increased by 10.95% resulting in increased emissions, despite reduced consumption; 2016/17 factor has reduced by 10.85%.

5. Additional Information

5.1. Recalculation Policy

We have a fixed base year of 2008 and this was chosen in line with reporting requirements for National Indicator 185: “Carbon emissions from Local Authority Estate and Operations”.

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

Schools 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. Consequently, as time goes on, we will likely be reporting lower emissions but not necessarily as a result of Council efficiencies. 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.

By the end of 2016/17, a total of 26 schools had converted and our carbon footprint was restated for all years in accordance with policy.

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.