

## 1.0 Introduction

At the end of July each year the council has a duty to submit a Carbon Footprint Report for qualifying emissions (Carbon Reduction Commitment) to the Environment Agency (EA). We also publish a total Greenhouse Gas Footprint Report (GHG) to the council website at:

<https://www.brighton-hove.gov.uk/content/environment/sustainability-city/reducing-our-carbon-emissions>

The footprints differ in that the GHG report includes emissions for all greenhouse gas emissions converted to carbon dioxide equivalents (CO<sub>2</sub>e). The GHG Footprint Report includes a full picture of our organisational emissions including electricity, gas and oil use in corporate buildings, schools and housing; as well as emissions from street lighting electricity and council fleet fuel usage.

The Carbon Report (CRC) only includes for carbon dioxide (CO<sub>2</sub>) emissions arising from non-domestic electricity usage in its operational buildings and from gas supplies using over 73,000 kWh a year.

This briefing provides a summary of our performance in the 2017/18 year, and some context to these reports.

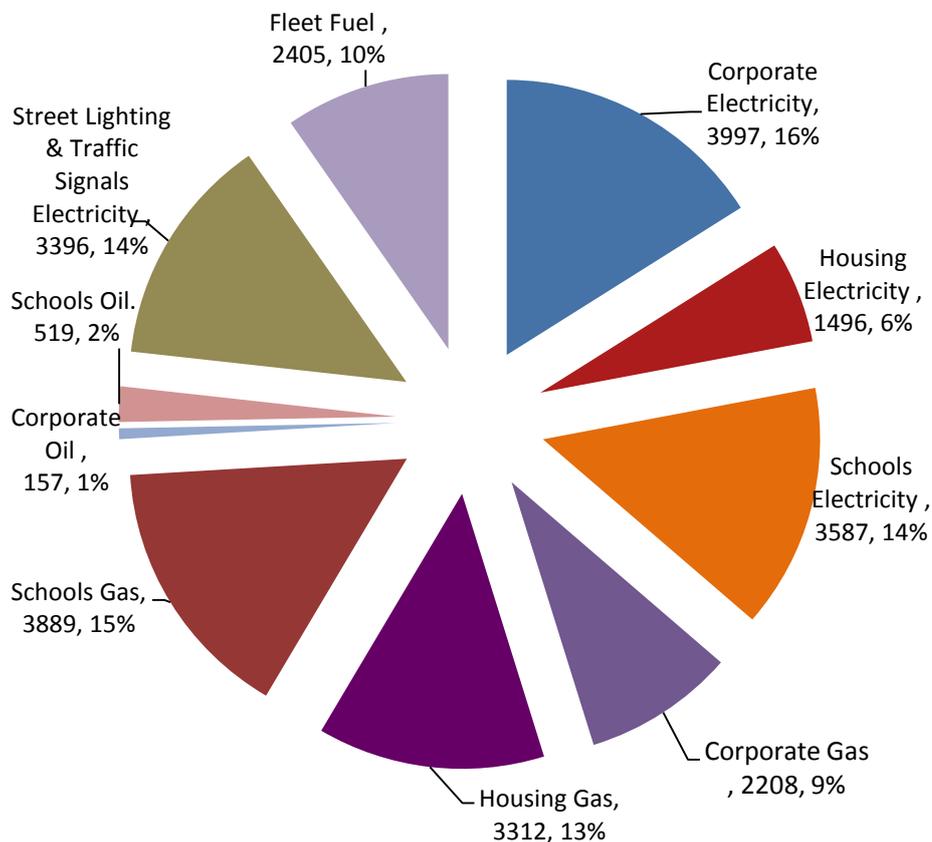
## 2.0 Greenhouse Gas Report (GHG)

The structure of the report follows Government guidance and is published on the BHCC website.

Brighton & Hove City Council's GHG footprint in 2017/18 was **24,966 tonnes CO<sub>2</sub>e** (or **24,827 tonnes CO<sub>2</sub>**) compared with our 2016/17 footprint of **27,377 tonnes CO<sub>2</sub>e** (or **27,243 tonnes CO<sub>2</sub>**) representing an overall annual reduction of **8.8%** against our corporate target of an annual 4% reduction.

**However, the annual reduction in emissions is slightly higher when degree day normalisation is applied—**see Section 3.0 Degree Day Adjustment on page 2.

**Figure 1:** 2017/18 Overall foot-print broken down by energy type & area as a % of the total CO<sub>2</sub>e



### 3.0 Degree Day Adjustment

Degree day data provides a measurement of how hot or cold the weather has been in a certain region over the year compared with a twenty year average. By applying heating degree-day data to gas and oil data we can adjust energy consumption figures to factor out fluctuations in outside temperature throughout the reporting year and in theory allowing us to compare each year's footprint on a like-for-like basis. Degree-day data can only be applied to gas and oil emissions used for heating.

Applying degree day analysis to gas and oil data results in a **9.30%** reduction in CO<sub>2</sub>e between 2016/17 and 2017/18.

Financial Year	Corporate	Housing	Schools	Street Lighting	Fleet Fuel	TOTAL	% change
	Weather adjusted tonnes CO <sub>2</sub> e						
2017/18	6,300	4,720	7,885	3,396	2,405	24,706	-9.30%
2016/17	7,435	4,880	8,624	4,011	2,288	27,238	

### 4.0 Carbon Reduction Commitment (CRC)

The CRC Energy Efficiency Scheme is a mandatory scheme to improve energy efficiency and therefore cut CO<sub>2</sub> emissions in large public and private sector organisations. All UK bodies with large energy bills (>£50k per annum) have to disclose their annual emissions and purchase CO<sub>2</sub> allowances, designed to incentivise the organisation to reduce emissions and to develop accurate data systems.

The CRC footprint uses CO<sub>2</sub> conversion factors and only requires an organisation to report on electricity usage in its buildings (excluding domestic building usage, street lighting and fleet fuel) and all gas supplies using over 73,000 kWh a year.

In July 2018 we submitted our annual 2017/18 footprint of **10,375 tonnes** CO<sub>2</sub> and this means that we will be surrendering **£167,038** worth of allowances. This is the third year of phase two of the scheme and currently excludes emissions in Schools but includes Street Lighting.

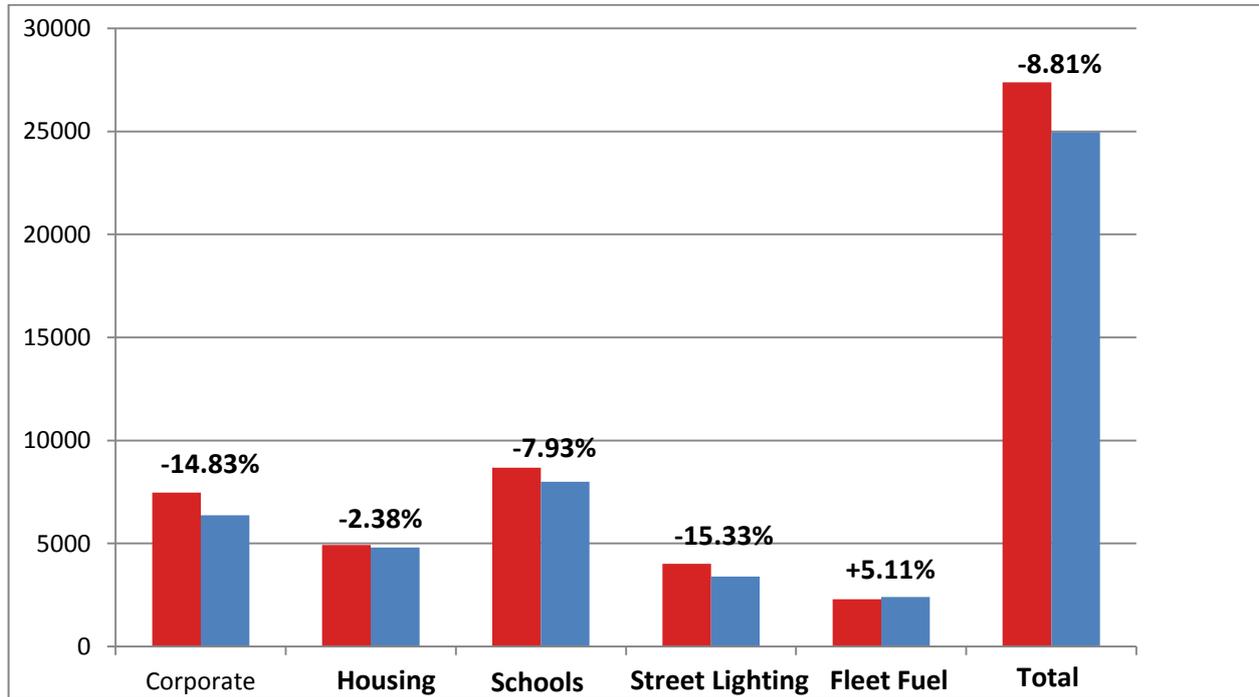
Our 2016/17 CRC footprint accounted for **12,190 tonnes** of CO<sub>2</sub> from our buildings and we surrendered **£196,259** worth of CRC allowances – a year on year reduction of **14.9%**.

Degree day analysis cannot be applied to the CRC annual report.

### 5.0 Carbon Budgets

In April each year the council set carbon budgets alongside the financial budget to provide accountability in carbon emissions for the following year. A 4% reduction target was set for (landlord level) housing, schools, corporate buildings, street lighting and fleet fuel in 2017/18. Most areas set out action plans for reducing emissions in that year. Figure 3 below summarises performance by carbon budget area and the percentage reduction between 2016/17 and 2017/18. All areas have seen a reduction in emissions, apart from Fleet fuel which has shown a small increase.

**Figure 3:** Percentage Reduction in Carbon (CO<sub>2</sub>e) emissions for carbon budgets 2016/17 – 2017/18 (not adjusted for degree days)



However, if degree day data is applied to this data as per figure 4 below, there are further reductions in emissions.

**Figure 4:** Percentage reduction in Carbon Emissions (CO<sub>2</sub>e) for carbon budgets between 2016/17 and 2017/18 (adjusted for degree days)

YEAR	Corporate	Housing	Schools	Street Lighting	Fleet Fuel
2017/18	15.27% decrease	3.28 % decrease	8.57 % decrease	15.33% decrease	5.11% Increase

The table below shows how we have performed against our own internal reduction targets over the last five years and the aggregate total percentage reduction vs our 2009/10 Baseline year.

**Figure 5:** Total Carbon Emissions (CO<sub>2</sub>e) vs targets & Baseline year.

Year	Actual Emissions CO <sub>2</sub> e	Target Emission (4% Reduction) CO <sub>2</sub> e	% Change Against Previous Year	TOTAL% Change Against 2009/10 Baseline
2013/14	34,111	37,106	-11.75%	-13.96%
2014/15	32,526	32,747	-4.65%	-17.95%
2015/16	29,214	31,225	-10.18%	-26.31%
2016/17	27,377	28,045	-6.3%	-30.94%
2017/18	24,965	26,923	-8.8%	-37.02%