

# ANNUAL GREENHOUSE GAS REPORT

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LOCAL AUTHORITY: Southampton City Council  
Civic Centre  
Civic Centre Road  
Southampton SO14 7LY

REPORTING PERIOD: 1 April 2015 to 31 March 2016

## REASONS FOR CHANGE IN EMISSIONS

Changes to emissions are due to a rationalisation of our estate: selling and transferring sites to the community, and some new building, along with the encouragement of more staff to work at home for one or two days per week. There is a reduction in schools emissions partly because we no longer receive consumption data from some schools who have become academies, and schools are no longer included in the Carbon Reduction Commitment (CRC) reporting legislation. The waste emissions have increased substantially due partly to both a 40% increase in the weight of municipal waste to landfill and an increase in the conversion factor from 289 to 459 kgCO<sub>2</sub>e per tonne of municipal waste to landfill.

## QUANTIFICATION AND REPORTING METHODOLOGY

Southampton City Council is publishing greenhouse gas emissions under the UK Government environmental reporting guidance. We have followed the GHG Protocol Value Chain Standard, reporting to Scope 1 and 2 only.

Under Scope 1 we have included emissions from the consumption of petrol and diesel in our fleet vehicles and our machinery as well as emissions from waste processing activities. We have not attempted to quantify fugitive emissions from our air conditioning units.

Scope 2 includes emissions from purchased electricity, gas, and heat and cooling from our district heating system. We have excluded emissions due to water supply as we do not currently record water consumption figures centrally.

Note that the DEFRA conversion factors used for the GHG report are kgCO<sub>2</sub>e whereas those used for the CRC are kgCO<sub>2</sub>.

As far as gas and electricity, we include supplies both that are both inside and outside the scope of CRC, such as unmetered supply (UMS) of street and traffic lights and CCTV, electricity supplies from domestic meters (01 or 02) and gas meters where the annual consumption was below 73,200 kWh. Therefore all gas, electricity, and heat and cooling from the district heating system in the following categories are included.

- Supplies for which Southampton City Council pay direct;

- Supplies for which the Council do not pay, but that are procured under our energy procurement contract, such as our leisure centres;
- Electricity supplied for street lighting and also for traffic lighting, which is paid by Balfour Beatty under a service contract
- Supplies to maintained schools and most academies.

We have added in emissions due to transmission and distribution to the electricity emission figures except for that generated on site by solar photovoltaic installations.

We generate electricity via photovoltaic installations on our City Depot and Civic Centre, along with a number of schools. Although we do not meter electricity returning to the grid, this will reduce our electricity emissions.

Emissions are disaggregated between schools and non-school sources, as are the intensity figures for which we have used full time equivalent staff numbers. We have used the 2015 UK Government Conversion Factors for Company Reporting.

<b>SCOPE 1</b> Metric tonnes of CO <sub>2</sub> e	<b>2015/2016</b>	<b>Source of emissions</b>	<b>% estimated</b>	<b>Base year 2012/2013</b>
<b>(non school)</b>				
Waste	10,560.88	Recycling, combustion, reuse and landfill of various materials. Increase due to higher municipal waste to landfill plus much higher conversion factor for landfill.	0	6,450.87
Petrol	13.54	Petrol used for machinery, red diesel for machinery, diesel used for on road vehicles. It is possible the base year did not include all red diesel.	0	4.87
Diesel	2,405.71		0	2,280.19
<b>Total Scope 1</b>	<b>12,980.14</b>			<b>8,735.92</b>

<b>SCOPE 2</b> Metric tonnes of CO <sub>2</sub> e	<b>2015/2016</b>	<b>Source of emissions - comment</b>	<b>% estimated</b>	<b>Base Year 2012/2013</b>
<b>Non school</b>				
Gas	1,426.30	Offices, depots, care homes, schools, public buildings, park and street management, street/traffic lighting. No domestic housing.	1.4%	2,221.87
Electricity	8,673.44		3.8%	12,170.76
District Heat	1,396.35		0.0%	1,152.84
District Coolth	727.20		0.0%	598.55

<b>Total non school</b>	<b>12,223.29</b>		2.9%	<b>16,144.02</b>
<b>Schools</b>				
Gas	3,921.22	Heating, cooking, hot water	0.9%	5,767.51
Electricity	4,797.10		0.5%	5,862.93
Heat	N/k		0.0%	
<b>Total Schools</b>	<b>8,718.32</b>		0.7%	<b>11,630.44</b>
<b>Total Scope 2</b>	<b>20,941.60</b>		2.0%	<b>27,774.46</b>

<b>Net emissions Scope 1 &amp; 2</b>	<b>2015-2016</b>	<b>2012-2013</b>
<b>Tonnes CO2e</b>	<b>33,921.74</b>	<b>36,509.66</b>

<b>Intensity Ratios – Scope 1 and 2</b>	<b>Total emissions</b>	<b>Full time equivalent</b>	<b>Intensity Ratio</b>
Schools	8,718.32	2,079 <sup>1</sup>	4.19
Non Schools	25,203.42	2,953	7.44

<sup>1</sup>The council can no longer provide FTE staff numbers for schools, so have repeated previous year.

## **BASE YEAR**

2012-2013 is our base year.

## **TARGETS**

Under our Carbon Reduction policy, Southampton City Council has set a target of reducing our gas and electricity CO<sub>2</sub> emissions by 40% by 2020 against a baseline year of 2010/11. As at 2015/2016 we have nearly achieved this target, largely to reduction in street lighting electricity and in our estate. The targets are based on data which includes all of the fossil fuelled energy supplies that fall within Southampton City Council's (and its schools and academies) responsibility, rather than just that reportable under the fluctuating CRC rules. It excludes district heating and cooling.

## **INTENSITY MEASUREMENT**

We have chosen the metric gross global scope 1 and 2 emissions in tonnes of CO<sub>2</sub>e per full time equivalent staff members as the most meaningful and evenly spread. Expenditure would not offer a meaningful metric of council size and activity as it may encompass outsourcing of work; we have no product; and area would, similarly not be suitable as we have a large number of sites suiting a variety of purposes, such as office space, leisure centres and care homes. Note that as schools become more independent we are no longer able to obtain the number of FTE staff in schools in Southampton and

so, although this year we used the same FTE figure as last 2 years, we will no longer provide this for schools as it will become unreliable.

### **EXTERNAL ASSURANCE**

The figures that we produced for CRC were examined during our annual CRC audit, which was carried out by GEP Environmental in June 2016. The audit resulted in a score indicating that we are fully compliant with CRC regulations, and indicated that our consumption data is robust.

### **CARBON OFFSETS**

We have not arranged or purchased any carbon offsets.

### **RENEWABLE ENERGY**

In the last year, our estate solar panels generated 236,176 kWh of electricity saving 126 tonnes of CO<sub>2</sub>. However, we are not able to collect all of the schools' PV generation after they were dropped from CRC, nor do we measure electricity that is exported back to the grid, so this data is incomplete.