Stoke-on-Trent City Council Carbon Footprint Report 2014-2015

This report provides an annual overview of Stoke-on-Trent City Council's carbon emissions and activities.

Summary Table of GHG Emissions			
Global tonnes of CO_2e			
	2014/15	2013/14	Base Year 2010/11
Scope 1	7,711	8,811	9,784
Scope 2	17,414	16,434	20,144
Scope 3	12,034	14,185	17,787
Total annual gross emissions (tCO_2e/year)	**37,159**	**34,430**	**47,714**
Purchased Green Tariff	8,439	7,605	8,626
Total annual net emissions (tCO_2e/year)	**28,721**	***31,825***	**39,088**
Council Expenditure (gross)	£701,300,000	*£811,400,000*	£817,300,000
Operating expenditure per tonne of CO_2e	***£24,418***	***£25,496***	**£20,909**

1 Organisation information

1.1 Business: A unitary Local Authority.

Address: Civic Centre, Glebe Street, Stoke-on-Trent, ST4 1HH.

2 Reporting period

2.1 This report covers the period 1st April 2014 – 31st March 2015.

3 Changes in emissions

3.1 Reported net emissions have decreased since last year by 9.8%. This is largely the result of decreased natural gas consumption due to both favourable weather conditions and improvements to heating control systems. Electricity usage has also decreased considerably however this has been counteracted by increases to the emissions factors.

3.2 Alteration have been required for historical data for two reasons:

- The City Council no longer retains rail travel data centrally therefore emissions resulting from rail travel have been removed from all years to allow for a like-for-like comparison.
- Scope 1 emissions have been revised for the 2013/14 year as more comprehensive gas consumption data is now available.

4 Measuring and reporting approach

4.1 The Authority has utilised the DEFRA Environmental Reporting Guidelines[1] to determine the principles for both scope of emissions and their measurement. Additionally, the 2014 greenhouse gas conversion factors, as made available by DEFRA[2], have been utilised to convert fuel consumption into carbon emissions.

5 Organisational Boundary

5.1 The Authority reports emissions only from those sources over which it has operational control. As such emissions from its PFI schools are included however emissions relating to social housing are not.

6 Operational Scopes

6.1 Greenhouse gas emissions are reported against 3 scopes -

Scope 1: '*Direct emissions*' including emissions from owned transport and fuel consumption from boilers in municipal buildings.

Scope 2: '*Indirect emissions*' comprise those resulting from the Council's electricity consumption both within municipal buildings and by its street and traffic lights.

[1] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/206392/pb13944-env-reporting-guidance.pdf

[2] http://www.ukconversionfactorscarbonsmart.co.uk/

Scope 3: '*Other Indirect Emissions*' which includes those resulting from travel undertaken by Council employees for business purposes (excluding rail travel) and electricity and gas consumption by schools. Schools are not considered to be scope 1 emissions as although they fall under the council's overall control they have their own devolved financial and management control.

7 Base Year

7.1 The base year has been established as the financial year 2010-2011.

8 Targets

8.1 Stoke-on-Trent City Council is committed to reducing its carbon emissions by 30% by December 2015, from a baseline of 2008. The Council has developed a Carbon Management Plan that sets out a series of projects and initiatives to meet the reduction target. The Carbon Management Plan has been endorsed by the Carbon Trust, and adopted by the Council.

As the Council's Carbon Management Plan does not include schools, a comparison using the figures within this report is not possible. When comparing like-for-like emissions, 2014/15 gross emissions were 25,126 tCO_2e achieving a 12.1% reduction against the 2008 Carbon Management Plan baseline of 28,581 tCO_2e.

8.2 The Energy Management Team is responsible for collating and submitting the annual emissions data. The officer with overall responsibility for reducing corporate carbon emissions is the Executive Director of City Renewal.

9 Intensity measurement

9.1 To allow each year's carbon footprint to be directly comparable to the baseline, the Council utilises a £ of gross expenditure per tonne of CO_2e intensity measure.

In 2014/15, the reduction in emissions is not mirrored by a decrease in the Council's operational expenditure due to the considerable reduction in funding from the National Government. When comparing this with the baseline year, there has been a 16.7% improvement in £ expenditure per emissions. This shows that the Council has adapted to the challenging financial conditions and is working more efficiently.

10 External Assurance Statement

10.1 A significant proportion of the data in this report has been provided from information collected for the Carbon Reduction Commitment Energy Efficiency Scheme which has been submitted to the Environment Agency for mandatory reporting purposes. This data is subject to internal quality checks and audit.

11 Carbon Offsetting

11.1 No carbon credits were purchased during this period.

12 Green tariffs

12.1 Electricity used on our highways network (street lighting and traffic signals) continues to be purchased through a green tariff. As such the emission of 8,439 tCO_2e was avoided during the 2014-15 financial year.

13 Electricity generation

13.1 A 37kW photovoltaic array installed on Council offices produced a total of 34,236 kWh - all used for council consumption and none exported to the grid.

A Combined Heat and Power (CHP) unit is in operation at Fenton Manor Sports and although it is not owned by the Council, it is considered to be under its operational control. In 2014/15 the unit produced 540,111 kWh of electricity and all is expected to have been consumed on site.

14 Heat generation

14.1 The CHP unit at Fenton Manor Sports Complex produced 869,579 kWh of heat in 2014/15. The emissions associated with this have been included within the gas consumption within Scope 1.

14.2 A biomass boiler was installed at St James House in October 2013 to replace a system of electric storage heaters. The boiler has produced 198,570 kWh of carbon neutral heat.

Appendix 1: Background Data to Summary Table

Scope 1 Emissions

Origin of Emissions		Consumption	Units	Total kg CO_2e
Fuels	Gas corporate	28,888,643	kWh	5,343,619
Owned Vehicles	Diesel	839,367	litres	2,184,368
	Petrol	29,693	litres	65,069
	Gas oil	40,447	litres	118,340
			Scope 1 TOTAL kg CO_2e	**7,711,396**
			Scope 1 TOTAL t CO_2e	**7,711**

Scope 2 Emissions

Origin of Emissions		Consumption	Units	Total tCO_2e
Purchased Electricity	Corporate buildings	18,159,512	kWh	8,975,520
	Streetlighting and Traffic Lights	17,073,210	kWh	8,438,605
			Scope 2 TOTAL kg CO_2e	**17,414,125**
			Scope 2 TOTAL t CO_2e	**17,414**

Scope 3 Emissions

Origin of Emissions		Consumption	Units	Total tCO_2e
Transport	Business Travel	3,375,654	km	625,838
Sub-organizations	Schools (Gas)	23,804,580	kWh	4,403,205
	Schools (Electricity)	14,172,153	kWh	7,004,728
			Scope 3 TOTAL kg CO_2e	**12,033,771**
			Scope 3 TOTAL t CO_2e	**12,034**

GROSS TOTAL kg CO_2e	**28,720,688**
GROSS TOTAL t CO_2e	**28,721**