

Staffordshire County Council Emissions Report 2010/11

1. Summary

Presented below is a summary of Staffordshire County Council's emissions during the previous financial year, 2010/11.

Figure 1: Summary of county council emissions in 2010/11.

	2010/11 Emissions (tonnes CO ₂ e)
Scope 1	5,909
Scope 2	97,921
Scope 3	5,119
Total	108,949
Intensity Ratio CO ₂ e/FTEs	5.18

2. Company Information

Staffordshire County Council, St Chad's Place, Stafford, ST16 2LR.

3. Reporting Period

1 April 2010 to 31 March 2011.

4. Change in Emissions

Due to reasons explained later in this report, our emissions data this financial year are not directly comparable with previous year's emissions data.

5. Approach

We have followed the Government's guidance on how to measure and report greenhouse gas emissions.

6. Organisational Boundary

We have included everything we control, both financially and organisationally. We have also included emissions from schools.

7. Operational Scopes

We have measured all relevant scope 1 and 2 emissions, along with significant scope 3 emissions (see figure 2). A method detailing how these data were collected is also given in figure 3.

Figure 2: Emissions reported

Emissions Source	CO ₂ e Emissions 2010/11 (tonnes)	Exclusions
Scope 1		
Owned Transport	5,909	
Fuel Combustion Process Emissions Fugitive Emissions		The county council does not emit any known GHGs from these sources.
Total Scope 1	5,909	
Scope 2		
Buildings: Schools	64,397	
Buildings: Offices/Depots	15,403	
Road Lighting	18,121	
Total Scope 2	97,921	
Significant Scope 3		
Business Mileage	5,119	
Total Scope 3	5,119	
Grand Total	108,949	

Figure 3: Calculations methods for each emissions source

Emissions Source	Data Collection Method
Owned Transport (1)	Miles driven was recorded for each vehicle and inserted into an Excel spreadsheet. Data was broken down into the different types of vehicle, i.e. petrol and diesel cars, buses, articulated and rigid lorries and vans. The mileages were then converted to kilometres so CO ₂ e calculations could be completed.
Owned Transport (2)	Our Highways department have a running contract with Enterprise PLC. They store a mixture of different fuels, including LPG, Kerosene and Gas Oil and these are used by Enterprise on behalf of the county council's Highways team for heavy operations. This effectively means that these emissions are county council emissions, and therefore they are included in our total emissions scope.
Buildings Energy Use	Smart meters have been installed into the vast majority of county council buildings. Data from the meters is fed directly to the energy management team as an accurate representation of each building's energy use.
Road Lighting	We use dynamic metering systems to measure the amount of energy each light consumes per year. This produces a 100% accurate measurement.
Business Mileage	Total number of business miles was given. The Department for Transport website ¹ states that, as of 2010, 71% of all UK licensed cars are petrol and 29% are diesel, therefore we used these figures when working out emissions from business mileage. We also assumed that all cars were of medium size. It is unknown what margin of error these assumptions will have generated.

¹ DfT Statistics:

<http://www2.dft.gov.uk/pgr/statistics/datatablespublications/vehicles/licensing/cars-stock/veh0203.xls>

Emissions data were calculated using the Carbon Trust's Carbon Emissions Baseline Tool for public sector organisations. A new version containing the latest carbon conversion factors was released in June 2011, and is available from the Carbon Trust Local Authority Network² website. All of the above data can be inputted into the Tool which automatically generates a CO₂e result.

Figure 4: Conversion Factors

Emission Source	Conversion Factor (kgCO₂e/Unit)
Owned Transport (km)	Medium diesel car: 0.1827 Large diesel car: 0.2472 Medium petrol hybrid car: 0.1202 Average Van: 0.2519 HGV Rigid: 0.8381 HGV Articulate: 0.9802 Bus (not pkm): 0.6200 LPG: 1.4968 Gas Oil: 3.0290 Kerosene: 2.5320
Buildings Gas (kWh)	0.1852
Buildings and Road Lighting Electricity (kWh)	0.5452
Business Mileage (km)	29% medium diesel: 0.1827 71% medium petrol: 0.2160

8. Base Year

Our base year is 1990 in line with the corporate reduction target. This base year was calculated by using the 'Measuring Progress: Sustainable Development Indicators 2010' book provided by Defra³. The publication states that "CO₂ emissions from the [public] sector's energy use... fell by 29% [between 1990 and 2008]." We were therefore able to project back from 2010/11 to obtain a 1990 baseline figure, which stands at 173,605 tonnes CO₂e.

This year, we have recalculated our base year to account for:

- The significant change and improved accuracy in the way we collect energy data from buildings. Smart meters have now been installed in the vast majority of county council properties, compared to last year where very few buildings had meters. Consequently, previous energy data was estimated by analysing bills.
- The omission of commute and waste data. This data was inaccurate and unreliable, and given that they are now both discretionary, the decision was made to remove them from our reporting scope.

This is also why comparing this year's emissions data to previous years would not be a worthwhile exercise.

² <http://lanetwork.carbontrust.co.uk/>.

³ <http://sd.defra.gov.uk/progress/national/annual-review/>

9. Targets

Our overarching target is to reduce our emissions by 80% by 2050, from a 1990 baseline. We have also set an interim target of reducing our emissions by 3% each year until 2016, from 2011.

Councillor Mark Winnington, Cabinet Member for Assets and the Environment, is responsible for the achievement of the target.

An Officers' Working Group has been established to coordinate the carbon reduction actions which will deliver against the Outcome Plan. The activity of this group will be scrutinised by a Members' and Senior Officers' Steering Group chaired by Councillor Winnington, which will meet quarterly.

10. Intensity Measurement

We have chosen 'Tonnes of CO₂e per full time equivalents' as this is the easiest to measure and the most relevant to our organisation. This is the first time we have recorded an intensity measurement, therefore there is no previous data that can be compared with.

11. Carbon Offsetting

Staffordshire County Council focuses on an absolute reduction in carbon emissions rather than offsetting.