

Greenhouse Gas Emissions from Local Authority own estate and operations (successor to National Indicator 185)

Oxford City Council

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Introduction

Oxford City Council has been assessing its carbon dioxide emissions as part of its own carbon management programme – “Getting Our house in Order” - since 2008. More recently it has been complying with National Indicator 185 requirements to monitoring its annual carbon dioxide (CO₂) emissions from its operations. Now NI 185 reporting has been replaced by a Department of Environment & Climate Change (DECC) request for each local authority to publish its greenhouse gas emission (GHG) figures as CO₂ equivalent.

In addition from 10/11, Oxford City Council now also has the obligation under the Carbon Reduction Commitment Energy Efficiency Scheme (CRC) legislation to report on emissions associated with a strictly defined set of its emission sources.

The areas that contribute to the bulk of our emissions are:

- Heating and electricity consumption in our operational sites (e.g. office buildings, depots, leisure centres, car parks, sports pavilions, public conveniences and other miscellaneous sites)
- Fuels consumed in our fleet vehicles (e.g. refuse trucks and vans), non-road going vehicles and plant (e.g. lawnmowers, chippers, and portable heaters)
- Travel for work purposes (e.g. fuel consumed in staff-owned vehicles and from the use of public transport)
- Operational waste deposited in landfill sites
- Water consumption

A summary of GHG emissions included in this report are as follows (*Please note: see Sections 4 and 5 below for scope of emissions coverage in this report*):

GHG emissions data for period 1 April 2010 to 31 March 2011 and 1 April 2009 to 31 March 2010*		
	Tonnes of CO₂e	
	2010/11	2009/10
Scope 1	4181	4089
Scope 2	3565	3985
Scope 3	91	84
Total annual net emissions	7837	8158

* see Sections 4 and 5 below for scope of emissions coverage in this report

1. Organisation Information

Oxford City Council is a non-metropolitan district council as defined by Section 1(4) and Schedule 1 Part II of the Local Government Act 1972. The Local Authority main contact details are: Oxford City Council, Town Hall, St Aldates, Oxford, OX1 1BX.

2. Reporting period

1 April 2010 – 31 March 2011. (Data from the previous year – 1 April 2009 to 31 March 2010 - is also included as requested by DECC for this reporting year).

3. Approach

We have followed the Government's Guidance on how to measure and report greenhouse gas emissions as outlined in communications from the Department of Energy and Climate Change. (*"Guidance on how to measure and report your greenhouse gas emissions", Defra, September 2009*)

4. Organisational boundary

We will report on the following emissions sources in our GHG report in the initial reporting years based on higher accuracy and availability of data:

- Electricity and gas consumed in our CRC core buildings and sites (e.g. emissions from our largest energy consuming operational buildings and other sites, defined as CRC core sites – making up approximately 90% of our non-domestic building emissions)
- Fuel consumption from fleet vehicles, non-road going vehicles and plant
- Kilometres travelled in staff-owned vehicles and estimated to be travelled in public transport for business purposes

In future years, as data quality and availability improves through further installation of Automated Meter Readers (AMR) and other monitoring devices, we propose to expand the scope to cover other emissions sources across the Council estate and operations (e.g. energy consumed in smaller buildings and sites such as public conveniences, sports pavilions etc, communal areas in council housing stock, operational waste deposited in landfill sites, water consumption and staff commuting).

5. Operational scopes

We have measured our scope 1, 2 and significant scope 3 emissions covering the areas outlined in the organisational boundary (see above). Further details as follows:

Scope 1: emissions are from combustion in owned or controlled boilers, furnaces, vehicles and plant. Therefore we have included natural gas, gas oil, kerosene and liquid petroleum gas, which are used to heat our buildings and also to power non-road going vehicles and plant such as lawn-mowers, chippers, etc. It also includes fuel consumption (e.g. diesel, biodiesel (30%

blend), petrol and LPG) from vehicles owned and operated by Oxford City Council such as refuse trucks and vans.

Scope 2: emissions are from purchased electricity for our buildings and other electricity consuming sites (e.g. Car parks)

Scope 3: emissions are from the kilometres travelled for business purposes in employee-owned vehicles (also known as “grey fleet”) and estimated to be travelled by public transport (e.g. bus and train)

Excluded emissions cover the following areas:

- **Domestic buildings:** Energy consumed in Domestic housing stock and in communal areas in these buildings (eg Council housing properties)
- **Commuting:** to/from work has not been included due to lack of recorded data
- **Water consumption:** has not been included this year
- **Operational Waste deposited in landfill:** has not been included due to insufficient high quality data
- **Perfluorocarbons (PFC), Hydrofluorocarbons (HFC) and Sulphur Hexafluoride (SF₆)** have not been included in this report as Oxford City Council has minimal recorded emissions activity in these areas
- **Avoided emissions from on-site renewable energy:** have not been included as existing systems are small scale and unmetered

Where possible we will work towards including the excluded emissions in future years. The existing Carbon Management Strategy (Getting our House In Order) will be reviewed and refreshed during 2011/12 where consideration will be given to expanding the scope of emissions to include in the next phase of the strategy.

Table 2 shows our gross GHG emissions in **2009/10** were **8158** tonnes CO_{2e}

Table 2: GHG emissions for period 1 April 2009 to 31 March 2010		
	Total Units	GHG emissions in tonnes of CO _{2e}
Scope 1		
Gas consumption (kWh)	10,608,580	1965
Gas Oil (litres)	23899	72
Kerosene (litres)	3955	10
LPG (litres)	69327	103
Diesel (litres)	604870	1616
Bio Diesel - 30%blend (litres)	69824	131
Petrol (litres)	82498	192
Total Scope 1		4089
Scope 2		
Purchased Electricity (kWh)	7,308,897	3985
Scope 3		
Average petrol car (km)	368,134	78
Passenger travel – train, national rail (km)	49,663	3
Passenger travel - average local bus (km)	18,872	3
Total Scope 3		84
Total tonnes of CO_{2e}		8158

Table 3 shows our gross GHG emissions in **2010/11** were **7837** tonnes CO_{2e}

Table 3: GHG emissions for period 1 April 2010 to 31 March 2011		
	Total Units	GHG emissions in tonnes of CO _{2e}
Scope 1		
Gas consumption (kWh)	11,060,937	2049
Gas Oil (litres)	14976	45
Kerosene (litres)	4400	11
LPG (litres)	28855	43
Diesel (litres)	704346	1882
Bio Diesel (litres)	0	0
Petrol (litres)	65032	151
Total Scope 1		4181
Scope 2		
Purchased Electricity (kWh)	6,539,420	3565
Scope 3		
Average petrol car (km)	406,335	86
Passenger travel – train, national rail (km)	50,000*	3
Passenger travel – average local bus (km)	18,000*	2
Total Scope 3		91
Total tonnes of CO_{2e}		7837

* estimated

6. Base Year

It is proposed that our base year for this GHG reporting process is to be 2010/11 as this is aligned more closely with our annual CRC reporting. We propose 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.

7. Targets

Our emissions reduction target for this GHG reporting process is to implement measures to reduce our GHG emissions, scopes 1, 2, and 3 (as outlined in Sections 4 and 5 above) by a minimum of 3% year on year. We are on track towards achieving this target.

John Copley, Head of Environmental Development has overall accountability and Jenny Davidson, Environmental Sustainability manager is responsible for the achievement of the target. Tim Sadler (Director, City Services) and lead member Councillor John Tanner is responsible for this work area. Internal assurance for the Carbon Management Programme and related work area is provided through the Carbon and Natural Resources Board on which the aforementioned personnel are Board members.

8. Intensity measurement

We have not chosen an intensity measurement as yet due to the varied nature of operations as a local authority but will consider appropriate measurements in future reporting years to add further context to reported data.

9. External Assurance Statement

We have received an independent external assurance statement for our energy reduction performance including audit of relevant data reporting sets through achievement of the British Standards Institute Energy Reduction Verification for our core CRC buildings and vehicle fleet emissions. Our current British Standards Kitemark certification (KM 573819) can be found on the Oxford City Council public website at:

<http://www.oxford.gov.uk/Direct/BSIERVKitemarkLicence1.pdf>