



**OXFORDSHIRE
COUNTY COUNCIL**

Greenhouse Gas Report 2017

Oxfordshire County Council

Date: 30/6/17

Owner: Environment and Resource Efficiency Team

Introduction

1. Each year, Oxfordshire County Council publishes details of its greenhouse gas (GHG) emissions in accordance with guidance published by the Department of Environment, Food and Rural Affairs (Defra)¹.
2. In line with the guidance, we report on emissions from activities over which the Council has financial control. These activities are:
 - a. Heating and electricity in corporate buildings (approximately 250) such as offices, libraries, fire-stations, and in maintained schools.
 - b. Electricity used in highways equipment, such as street lights, bollards and illuminated signs, CCTV, real time bus information, traffic signals and pumping stations.
 - c. Business travel (including fleet vehicles and staff travel by car).
 - d. Fuel, electricity and gas used by our highways and property & facilities contractors and electricity used for the ICT out of county servers.

2016/17 Greenhouse Gas Emissions

3. In 2016/17, gross emissions from Oxfordshire County Council properties and services totalled **30,684 tonnes of CO₂ equivalent (CO₂e)**. Of this, the corporate estate contributed 20,220 tonnes CO₂e (66% of the total emissions), maintained schools 10,464 tonnes CO₂e.
4. Table 1 overleaf summarises our GHG figures for the base year 2010/11 and subsequent years to 2016/17. The figures have been calculated using the relevant emission factors for each year published by DEFRA².
5. Annex A shows our emissions in greater detail split into corporate and schools emissions. Annex B presents heating degree day data for the reporting period to give an indication of the severity of each winter and therefore the energy demand for heating.

Change from previous year

6. Total emissions in 2016/17 were 14% lower than in 2015/16, a total reduction of 4,879 tonnes CO₂e.
7. Emissions from the Council's corporate estate and activities also fell by 14% over the same period from 23,441 to 20,220 tonnes CO₂e.
8. Emissions from schools fell by 1,657 tonnes CO₂e, 14%. Almost three quarters of this reduction (1,130 tonnes CO₂e) is because a number of schools have become academies during the reporting year and have not been included in the footprint as they now fall outside the council's financial control.

1 Defra (2013) Environmental Reporting Guidelines: Including mandatory greenhouse gas emissions reporting guidance
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/206392/pb13944-env-reporting-guidance.pdf

2 Defra (2016) Government conversion factors for company reporting
<http://www.ukconversionfactorscarbonsmart.co.uk/>. Calculations for 2016/17 emissions use the 2016 conversion factors.

Comparison against baseline year and reduction target

9. Oxfordshire County Council is a member of the Oxfordshire Environment Partnership. The Partnership has adopted 2010/11 as its baseline year and is committed to a 3% year on year reduction in emissions of greenhouse gases (CO₂ equivalent).
10. Emissions from our corporate estate have reduced by 41.5% since 2010/11, an average annual reduction of 6.9% per year.
11. Emissions from schools have reduced by 69% since the baseline year 2010/11, mainly due to the number of schools becoming academies in that period and therefore no longer included in our reporting. Emissions from maintained schools only have reduced by 12%, an average of just over 3% per year.
12. Although the exclusion of academies from our report since 2014/15 impacts on the comparison over time, we have not rebased the 2010/11 baseline, as we know that more schools will be converting in subsequent years. This avoids the need to rebase each year as more of our schools convert. Instead details for our schools and corporate estate are reported separately in Annex A.
13. This means that our total reported emissions in 2016/17 were 55% lower than in 2010/11. Removal of academies from our reporting reduces the baseline emissions by just over half (51%). For further details see Annex A, Tables 6 and 7.

Table 1: TOTAL GHG emissions for period 1 April 2010 to 31 March 2017

Tonnes of CO2e							
	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Scope 1*							
Gas/Kerosene/Oil/ LPG/Petrol/ Diesel	25,543	17,948	22,293	19,356	10,873	9,088	8,076
Scope 2*							
Purchased Electricity	35,358	31,865	33,264	31,100	25,228	21,619	18,398
Scope 3*							
Electricity Transmission & Distribution/ Business Travel/ Energy used in contractor's office	7,140	6,015	5,894	6,567	5,588	4,855	4,210
Total Gross Emissions	68,041	55,828	61,451	57,023	41,688	35,562	30,684
Carbon offsets	0	0	0	0	0	0	0
Green tariff	12,179	0	0	0	0	0	0
Renewable electricity	0	0	35	70	94	58	63
Total annual net emissions	55,862	55,828	61,416	56,953	41,595	35,505	30,621
Outside scope							
Diesel				79	62	59	36
Petrol				0.07	0.23	0.15	0.32
Biomass	0	7	9	66	66	66	66
Total Outside Scope Emissions				144	128	124	102

***Data Explanation**

14. **Scope 1** includes all direct emissions such as those from boilers, furnaces and vehicles. Therefore we have included the emissions from the natural gas, gas oil, kerosene and liquid petroleum gas used to heat our buildings, including schools. We have also included emissions from vehicles owned by the Council.

15. **Scope 2** covers indirect emissions from the electricity purchased for our buildings, as well as street lights, CCTV, traffic signals, traffic bollards, real time bus information displays and pumping stations.

16. **Scope 3** covers other indirect emissions. Under this heading, we report on emissions from:

- electricity transmission and distribution
- the private vehicles used by our staff on business
- vehicles used by both our highways maintenance contractor and property and facilities contractor

- electricity and gas used in the Oxford office of our Property and Facilities contractor.
- electricity used for the out of county ICT data servers.

17. **Green Tariff:** Our electricity for properties was purchased on a green tariff during 2010/11, but this was not continued into our new energy contract for the following years.

18. **Renewable Electricity:** From 2012/13, we have included information from electricity generation from solar PV and wind installations.

19. **Outside Scope** includes emissions of carbon dioxide from renewable sources. These include the biogenic element of purchased fuel and fuel used for biomass boilers.

Excluded Emissions:

20. We do not include emissions from the following sources:

- Those activities for which the data is not readily available or not available at a reasonable cost: **Commuting, water and waste.**
- **Perfluorocarbons (PFC), Hydrofluorocarbons (HFC) and Sulphur Hexafluoride (SF6)** have not been included in this report as our activities either do not emit these gases or they are currently not measured.

21. We will include the excluded emissions in future years as and when it becomes practical and cost effective to collect the data.

22. We have summarised the details above in Table 2.

Table 2 – Summary of Council GHG emissions under each scope

Scope 1	Scope 2	Scope 3	Outside of scope	Excluded
Gas, LPG and oil use in schools and council buildings.	Electricity use in schools, council buildings, street lighting and other street furniture, car parks, pumping stations	Contractor electricity, gas, oil and fuel use. Electricity used by remote ICT servers	Biogenic emissions from purchased fuel	Perfluorocarbons, hydrofluorocarbons and sulphur hexafluoride
Fuel used in council vehicle fleet		Business mileage by car	Wood fuel used in biomass boilers	Council office and schools waste collection, treatment and disposal
		Purchased electricity transmission and distribution losses		Staff commuting
				Water

Annex A – Detailed emissions tables

Table 3. Total GHG emissions for period 1 April 2016 to 31 March 2017 (kg CO _{2e})					
2016/17	Total Units	CO ₂	CH ₄	N ₂ O	Total
Scope 1					
Gas (kWh)	36,123,967	6,633,996	9,211	3,488	6,646,695
Gas Oil (litres)	162,111	513,765	676	1,166	515,607
Kerosene (Litres)	71,614	180,448	452	449	181,349
LPG (Litres)	45,122	67,787	59	64	67,909
Diesel (litres)	250,734	649,419	150	5,255	654,824
Petrol (litres)	4,500	9,838	31	18	9,887
Scope 1 Total		8,055,253	10,579	10,440	8,076,272
Scope 2					
Electricity (kWh)	44,649,166	18,286,959	17,413	93,317	18,397,689
Scope 3					
Electricity transmission and distribution (kWh)	45,349,779	1,680,209	1,360	8,616	1,690,186
Contractor diesel (litres)	318,023	823,702	191	6,666	830,558
Contractor petrol (litres)	2,900	6,339	20	11	6,371
Business Travel average petrol car (miles)	4,409,862	1,355,459	2,514	3,572	1,361,545
Business Travel average diesel car (miles)	48,496	14,138	1	149	14,287
Business travel average car unknown fuel (miles)	20,477	6,116	6	38	6,161
Electricity (kWh)	700,613	286,950	273	1,464	288,688
Gas (kWh)	64,410	11,829	16	6	11,851
Scope 3 Total		2,185,500	2,724	10,249	4,209,647
Total (kg)		28,527,712	30,716	114,006	30,683,608
Total (tonnes)		28,528	31	114	30,684
Renewable energy					
Grid export electricity	151,867				62,577
Total (kg)					62,577
Total (tonnes)					63
Outside of Scope					
Diesel (litres)	568,758				35,695
Petrol (litres)	4,500				324
Biomass (tonnes)	40				65,531
Total (kg)					101,551
Total(Tonnes)					102

Table 4. Corporate GHG emissions, 1 April 2016 to 31 March 2017 (kg CO_{2e})					
2016/17	Total Units	CO₂	CH₄	N₂O	Total
Scope 1					
Gas (kWh)	10,904,096	2,002,486	2,780	1,053	2,006,319
Gas Oil (litres)	29,733	94,230	124	214	94,568
Kerosene (Litres)	0	0	0	0	0
LPG (Litres)	0	0	0	0	0
Diesel (litres)	250,734	649,419	150	5,255	654,824
Petrol (litres)	4,500	9,838	31	18	9,887
Scope 1 Total		2,755,973	3,086	6,540	2,765,598
Scope 2					
Electricity (kWh)	33,288,519	13,633,979	12,983	69,573	13,716,534
Scope 3					
Electricity transmission and distribution (kWh)	33,989,133	1,259,297	1,020	6,458	1,266,775
Contractor Diesel (litres)	318,023	823,702	191	6,666	830,558
Contractor petrol (litres)	2,900	6,339	20	11	6,371
Business Travel Claims medium Petrol (miles)	4,251,915	1,306,911	2,424	3,444	1,312,779
Business Travel average diesel car (miles)	48,496	14,138	1	149	14,287
Business travel average car unknown fuel (miles)	20,477	6,116	6	38	6,161
Electricity (kWh)	700,613	286,950	273	1,464	288,688
Gas (kWh)	64,410	11,829	16	6	11,851
Scope 3 Total					3,737,470
Total (kg)		16,389,952	16,068	76,113	20,219,602
Total (tonnes)		16,390	16	76	20,220

Table 5. Maintained schools GHG emissions, 1 April 2016 to 31 March 2017 (kg CO_{2e})					
2016/17	Total Units	CO₂	CH₄	N₂O	Total
Scope 1					
Gas (kWh)	25,219,871	4,631,510	6,431	2,435	4,640,376
Gas Oil (litres)	132,378	419,535	552	952	421,039
Kerosene (Litres)	71,614	180,448	452	449	181,349
LPG (Litres)	45,122	67,787	59	64	67,909
Diesel (litres)					0
Petrol (litres)					0
Scope 1 Total		5,299,280	7,493	3,900	5,310,674
Scope 2					
Electricity (kWh)	11,360,646	4,652,980	4,431	23,744	4,681,154
Scope 3					
Electricity transmission and distribution (kWh)	11,360,646	420,912	341	2,159	423,411
Business Travel medium petrol car (miles)	157,947	48,548	90	128	48,766
Scope 3 Total					472,177
Total (kg)		9,952,260	11,924	27,644	10,464,005
Total (tonnes)		9,952	12	28	10,464

Tables 6 and 7 show the impact of academies conversions on the Council's emissions.

Schools converting during 2013/14 to 2015/16 accounted for 51% of the total emissions from schools. Reducing the 2010/11 school emissions by this amount allows us to estimate the Council's total emissions in the baseline year without the academies.

This shows that total emissions from the corporate estate have reduced by an average of 6.9% per year since 2010/11 and from schools by an estimated 3.3% per year.

Table 6. Summary of change over time			
	Change from baseline 2010/11 to 2016/17	Change from previous year 2015/16 to 2016/17	Average annual change 2010/11 to 2016/17
CORPORATE emissions	-32.2%	-11.1%	-6.9%
SCHOOLS' emissions (without academies)	-15.3%	-11.0%	-3.3%
TOTAL emissions (without academies)	-27.2%	-11.1%	-1.9%

Table 7. Change over time: details

1. Corporate estate	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Total emissions (T CO ₂ e)	34,550	25,852	26,786	26,665	26,368	23,441	20,220
<i>change from previous year</i>		-25.2%	3.6%	-0.5%	-1.1%	-11.1%	-13.7%
<i>change from baseline</i>		-25.2%	-22.5%	-22.8%	-23.7%	-32.2%	-41.5%
average annual change							-6.9%

2. Schools	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Total emissions (Tonnes CO ₂ e)	33,491	29,976	34,664	30,358	15,320	12,121	10,464
<i>change from previous year</i>		-10.5%	15.6%	-12.4%	-49.5%	-20.9%	-13.7%
<i>change from baseline</i>		-10.5%	3.5%	-9.4%	-54.3%	-63.8%	-68.8%
average annual change							-11.5%

Impact of academisation	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Maintained schools, emissions	33,491	29,976	34,664	14,535	13,619	10,992	10,464
Academies							
<i>Emissions(T CO₂e)</i>	n/a	n/a	n/a	15,824	1701	1,130	
<i>% of total schools' emissions</i>				52.1%	11.1%	9.3%	
Baseline adjusted for academy conversions in:							
2014/15	16,076	(= 48% original figure)					
2015/16	14,307	(= 89% of previous adjustment)					
2016/17	13,020	(91% of 2015/16 figure)					
Maintained schools only:							
<i>Change from adjusted baseline</i>							-19.6%
<i>Change in past year</i>							-4.8%
Average annual change							-3.3%

3. TOTAL Emissions	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Published figures	68,041	55,828	61,451	57,023	41,688	35,562	30,684
<i>Figures adjusted for academies conversion</i>	48,857				39,987	34,433	30,684
<i>change from adjusted baseline</i>						2.4%	-11.7%
<i>change from previous year</i>						-11.1%	-10.9%
average annual change						0.5%	-1.9%

Data tables for previous years

Table 8. Total GHG emissions for period 1 April 2015 to 31 March 2016 (kg CO _{2e})					
2014/15	Total Units	CO ₂	CH ₄	N ₂ O	Total
Scope 1					
Gas (kWh)	40,542,397	7,462,639	11,352	4,054	7,478,045
Gas Oil (litres)	80,388	218,803	232	14,801	233,836
Kerosene (Litres)	62,349	157,103	383	392	157,877
LPG (Litres)	15,306	23,049	26	27	23,103
Diesel (litres)	460,731	1,180,578	323	9,583	1,190,484
Petrol (litres)	2,076	4,540	7	9	4,556
Scope 1 Total		9,046,712	12,322	28,867	9,087,901
Scope 2					
Electricity (kWh)	46,775,843	21,446,724	16,372	156,231	21,619,327
Scope 3					
Electricity transmission and distribution (kWh)	47,470,026	1,797,215	1,424	13,292	1,811,456
Contractor diesel (litres)	474,215	1,215,128	332	9,864	1,225,324
Contractor petrol (litres)	2,900	6,341	10	13	6,363
Business Travel average petrol car (miles)	4,706,080	1,444,608	985	2,954	1,448,546
Business Travel average diesel car (miles)	48,496	14,093	6	130	14,229
Business travel average car unknown fuel (miles)	54,830	16,350	9	85	16,444
Electricity (kWh)	694,183	318,283	243	2,319	320,844
Gas (kWh)	64,955	11,956	18	6	11,981
Scope 3 Total		2,666,076	1,326	12,830	4,855,188
Total (kg)		33,159,512	30,020	197,929	35,562,415
Total (tonnes)		33,160	30	198	35,562
Renewable energy					
Grid export electricity	124,666				57,619
Total (kg)					57,619
Total (tonnes)					58
Outside of Scope					
Diesel (litres)	934,946				58,677
Petrol (litres)	2,076				150
Biomass (tonnes)	40				65,531
Total (kg)					124,358
Total (Tonnes)					124

Table 9. Corporate GHG emissions, 1 April 2015 to 31 March 2016 (kg CO_{2e})

2015/16	Total Units	CO ₂	CH ₄	N ₂ O	Total
Scope 1					
Gas (kWh)	10,679,549	1,965,785	2,990	1,068	1,969,843
Gas Oil (litres)	10,001	27,221	29	1,841	29,091
Kerosene (Litres)	2,929	7,380	18	18	7,417
LPG (Litres)	6,007	9,046	10	11	9,067
Diesel (litres)	460,731	1,180,578	323	9,583	1,190,484
Petrol (litres)	2,076	4,540	7	9	4,556
Scope 1 Total		3,194,550	3,377	12,531	3,210,458
Scope 2					
Electricity (kWh)	34,421,171	15,782,107	12,047	114,967	15,909,121
Scope 3					
Electricity transmission and distribution (kWh)	35,115,354	1,329,467	1,053	9,832	1,340,002
Contractor Diesel (litres)	474,215	1,215,128	332	9,864	1,225,324
Contractor petrol (litres)	2,900	6,341	10	13	6,363
Business Travel Claims medium Petrol (miles)	4,503,371	1,382,383	942	2,827	1,386,152
Business Travel average diesel car (miles)	48,496	14,093	6	130	14,229
Business travel average car unknown fuel (miles)	54,830	16,350	9	85	16,444
Electricity (kWh)	694,183	318,283	243	2,319	320,844
Gas (kWh)	64,955	11,956	18	6	11,981
Scope 3 Total					4,321,339
Total (kg)		18,976,656	15,424	127,498	23,440,918
Total (tonnes)		18,977	15	127	23,441

Table 10. Maintained schools GHG emissions, 1 April 2015 to 31 March 2016 (kg CO_{2e})					
	Total Units	CO₂	CH₄	N₂O	Total
Scope 1					
Gas (kWh)	29,862,848	5,496,854	8,362	2,986	5,508,202
Gas Oil (litres)	70,387	191,582	203	12,960	204,745
Kerosene (Litres)	59,420	149,722	365	373	150,460
LPG (Litres)	9,299	14,003	16	17	14,036
Diesel (litres)					0
Petrol (litres)					0
Scope 1 Total		5,852,162	8,945	16,336	5,877,443
Scope 2					
Electricity (kWh)	12,354,672	5,664,617	4,324	41,265	5,710,206
Scope 3					
Electricity transmission and distribution (kWh)	12,354,672	467,748	371	3,459	471,454
Business Travel medium petrol car (miles)	202,709	62,225	42	127	62,394
Scope 3 Total					533,849
Total (kg)		11,516,779	13,269	57,600	12,121,497
Total (tonnes)		11,517	13	58	12,121

Table 11. Total GHG emissions for period 1 April 2014 to 31 March 2015 (kg CO_{2e})

2014/15	Total Units	CO ₂	CH ₄	N ₂ O	Total
Scope 1					
Gas (kWh)	46,515,435	8,584,769	14,140	5,191	8,604,100
Gas Oil (litres)	251,987	687,041	637	49,577	737,256
Kerosene (Litres)	86,831	219,317	459	598	220,375
LPG (Litres)	57,445	86,169	36	91	86,297
Diesel (litres)	468,069	1,208,226	328	9,549	1,218,102
Petrol (litres)	3,203	6,994	10	16	7,020
Scope 1 Total		10,792,517	15,609	65,023	10,873,149
Scope 2					
Electricity (kWh)	51,041,377	25,022,014	16,844	188,343	25,227,711
Scope 3					
Electricity transmission and distribution (kWh)	51,754,205	2,218,703	1,553	16,561	2,236,817
Contractor diesel (litres)	522,599	1,348,984	366	10,661	1,360,011
Contractor petrol (litres)	37,253	81,334	112	190	81,635
Business Travel average petrol car (miles)	4,845,428	1,506,410	1,092	4,367	1,511,869
Business Travel average diesel car (miles)	75,660	22,361	6	216	22,582
Business travel average car unknown fuel (miles)	21,593	6,542	3	37	6,583
Electricity (kWh)	712,828	349,449	235	2,630	352,322
Gas (kWh)	85,104	15,707	26	9	15,742
Scope 3 Total		2,936,727	1,569	15,218	5,587,560
Total (kg)		38,751,259	34,022	268,584	41,688,421
Total (tonnes)		38,751	34	269	41,688

Renewable energy					
Grid export electricity	189,793				93,807
Green tariff	25,635,426				12,670,566
Total (kg)					12,670,566
Total (tonnes)					12,671

Outside of Scope					
Diesel (litres)	990,667				62,174
Petrol (litres)	3,203				231
Biomass (tonnes)	40				65,531
Total (kg)					127,936
Total(Tonnes)					128

Table 12. Corporate GHG emissions, 1 April 2014 to 31 March 2015 (kg CO_{2e})					
2014/15	Total Units	CO₂	CH₄	N₂O	Total
Scope 1					
Gas (kWh)	11,637,222	2,147,736	3,537	1,299	2,152,572
Gas Oil (litres)	17,083	46,577	43	3,361	49,981
Kerosene (Litres)	2,000	5,052	11	14	5,076
LPG (Litres)	26,926	40,390	17	43	40,450
Diesel (litres)	468,069	1,208,226	328	9,549	1,218,102
Petrol (litres)	3,203	6,994	10	16	7,020
Scope 1 Total		3,454,974	3,945	14,281	3,473,200
Scope 2					
Electricity (kWh)	36,489,314	17,888,156	12,041	134,646	18,035,208
Scope 3					
Electricity transmission and distribution (kWh)	37,202,142	1,594,856	1,116	11,905	1,607,877
Contractor Diesel (litres)	522,599	1,348,984	366	10,661	1,360,011
Contractor petrol (litres)	37,253	81,334	112	190	81,635
Business Travel Claims medium Petrol (miles)	4,529,635	1,408,232	1,021	4,082	1,413,335
Business Travel average diesel car (miles)	75,660	22,361	6	216	22,582
Business travel average car unknown fuel (miles)	21,593	6,542	3	37	6,583
Electricity (kWh)	712,828	349,449	235	2,630	352,322
Gas (kWh)	85,104	15,707	26	9	15,742
Scope 3 Total					4,860,086
Total (kg)		21,343,130	15,987	148,927	26,368,495
Total (tonnes)		21,343	16	149	26,368

Table 13. Maintained schools GHG emissions, 1 April 2014 to 31 March 2015 (kg CO_{2e})					
	Total Units	CO₂	CH₄	N₂O	Total
Scope 1					
Gas (kWh)	34,878,213	6,437,033	10,602	3,892	6,451,528
Gas Oil (litres)	234,904	640,465	594	46,216	687,275
Kerosene (Litres)	84,831	214,266	448	585	215,299
LPG (Litres)	30,519	45,779	19	49	45,847
Diesel (litres)					0
Petrol (litres)					0
Scope 1 Total		7,337,543	11,664	50,742	7,399,949
Scope 2					
Electricity (kWh)	14,552,063	7,133,858	4,802	53,697	7,192,357
Scope 3					
Electricity transmission and distribution (kWh)	14,552,063	623,847	437	4,657	628,940
Business Travel medium petrol car (miles)	315,793	98,178	71	285	98,534
Scope 3 Total					727,474
Total (kg)		14,471,401	16,466	104,439	15,319,780
Total (tonnes)		14,471	16	104	15,320

Table 14. Total GHG emissions for period 1 April 2013 to 31 March 2014

kg CO_{2e}					
2013/14	Total Units	CO₂	CH₄	N₂O	Total
Scope 1					
Gas (kWh)	92,145,368	16,923,418	24,879	10,136	16,958,434
Gas Oil (litres)	285,805	780,591	743	57,304	838,638
Kerosene (Litres)	95,322	240,974	505	658	241,927
LPG (Litres)	148,330	221,101	104	237	221,442
Diesel (litres)	420,342	1,084,693	336	8,197	1,093,225
Petrol (litres)	1,175	2,592	4	6	2,602
Scope 1 Total		19,253,368	26,571	76,538	19,356,268
Scope 2					
Electricity (kWh)	69,812,336	30,883,581	20,246	196,173	31,099,999
Scope 3					
Electricity transmission and distribution (kWh)	69,989,583	2,647,706	1,400	16,797	2,665,903
Contractor diesel (litres)	779,037	2,010,305	623	15,191	2,026,119
Contractor petrol (litres)	193	426	1	1	427
Business travel average petrol car (miles)	5,361,845	1,703,464	1,206	4,831	1,709,501
Business travel average diesel car (miles)	145,395	42,446	12	414	42,872
Business travel average car unknown fuel (miles)	58,513	17,805	9	99	17,913
Electricity (kWh)	177,247	78,411	51	498	78,960
Gas (kWh)	135,374	24,863	37	15	24,914
Scope 3 Total		3,714,194	1,830	20,023	6,566,610
Total (kg)		53,851,144	48,647	292,734	57,022,878
Total (tonnes)		53,851	49	293	57,023
Renewable energy					
Grid export electricity	156,319				69,637
Total (kg)					69,637
Total (tonnes)					70
Outside of Scope					
Diesel (litres)	1,199,379				78,636
Petrol (litres)	1,175				75
Biomass (tonnes)	40				65,531
Total (kg)					144,242
Total (Tonnes)					144

Table 15: Corporate GHG emissions for period 1 April 2013 to 31 March 2014

kg CO_{2e}					
2013/14	Total Units	CO₂	CH₄	N₂O	Total
Scope 1					
Gas (kWh)	13,929,814	2,558,350	3,761	1,532	2,563,643
Gas Oil (litres)	22,273	60,832	58	4,466	65,356
Kerosene (Litres)	2,500	6,320	13	17	6,345
LPG (Litres)	58,782	87,620	41	94	87,756
Diesel (litres)	420,342	1,084,693	336	8,197	1,093,225
Petrol (litres)	1,175	2,592	4	6	2,602
Scope 1 Total		3,800,407	4,213	14,312	3,818,927
Scope 2					
Electricity (kWh)	39,410,931	17,434,608	11,429	110,745	17,556,782
Scope 3					
Electricity transmission and distribution (kWh)	39,588,178	1,497,621	792	9,501	1,507,914
Contractor Diesel (litres)	779,037	2,010,305	623	15,191	2,026,119
Contractor petrol (litres)	193	426	1	1	427
Business travel Claims medium Petrol (miles)	4,986,553	1,584,233	1,122	4,493	1,589,848
Business travel average diesel car (miles)	145,395	42,446	12	414	42,872
Business travel average car unknown fuel (miles)	58,513	17,805	9	99	17,913
Electricity (kWh)	177,247	78,411	51	498	78,960
Gas (kWh)	135,374	24,863	37	15	24,914
Scope 3 Total					5,288,968
Total (kg)		21,235,014	15,643	125,057	26,664,676
Total (tonnes)		21,235	16	125	26,665

Table 16: Schools* GHG emissions for period 1 April 2013 to 31 March 2014					
kg CO_{2e}					
2013/14	Total Units	CO₂	CH₄	N₂O	Total CO_{2e}
Scope 1					
Gas (kWh)	78,215,554	14,365,069	21,118	8,604	14,394,791
Gas Oil (litres)	263,532	719,759	685	52,838	773,282
Kerosene (Litres)	92,822	234,654	492	640	235,582
LPG (Litres)	89,548	133,480	63	143	133,686
Diesel (litres)					0
Petrol (litres)					0
Scope 1 Total		15,452,962	22,358	62,226	15,537,341
Scope 2					
Electricity (kWh)	30,401,405	13,448,974	8,816	85,428	13,543,218
Scope 3					
Electricity transmission and distribution (kWh)	30,401,405	1,150,085	608	7,296	1,157,990
Business travel medium petrol car (miles)	375,292	119,231	84	338	119,653
Scope 3 Total					1,277,643
Total (kg)		28,901,935	31,174	147,654	30,358,202
Total (tonnes)		28,902	31	148	30,358

*These figures include ALL state schools in the county. Academies contributed 14,535 tonnes CO_{2e}, 48% of the total schools emissions.

Table 17: Total GHG emissions for period 1 April 2012 to 31 March 2013

kg CO_{2e}					
2012/13	Total Units	CO₂	CH₄	N₂O	Total CO_{2e}
Scope 1					
Gas (kWh)	106,826,773	19,744,792	28,843	11,751	19,785,387
Gas Oil (litres)	446,820	1,233,000	1,340	115,592	1,349,977
Kerosene (Litres)	107,824	273,000	593	744	274,337
LPG (Litres)	130,725	200,022	92	235	200,349
Diesel (litres)	263,892	676,514	238	5,014	681,765
Petrol (litres)	486	1,085	2	3	1,090
Scope 1 Total		22,128,413	31,107	133,339	22,292,904
Scope 2					
Electricity (kWh)	72,309,468	33,049,765	20,247	193,066	33,263,801
Scope 3					
Electricity transmission and distribution (kWh)	72,309,468	2,611,095	1,446	15,185	2,627,726
Highways Maintenance Diesel (litres)	574,957	1,473,960	517	10,924	1,485,401
Business travel Claims medium Petrol (miles)	5,482,174	1,774,086	1,316	5,756	1,781,104
Scope 3 Total		3,248,046	1,833	16,680	5,894,231
Total (kg)		58,426,225	53,187	343,086	61,450,937
Total (tonnes)		58,426	53	343	61,451

Table 18: Total GHG emissions for period 1 April 2011 to 31 March 2012					
kg CO_{2e}					
2011/12	Total Units	CO₂	CH₄	N₂O	Total CO_{2e}
Scope 1					
Gas (kWh)	83,566,304	15,445,560	22,563	9,192	15,477,315
Gas Oil (litres)	5,062,027	1,284,337	1,417	120,426	1,406,130
Kerosene (Litres)	85,525	216,541	470	590	217,601
LPG (Litres)	97,768	149,595	68	176	149,839
Diesel (litres)	267,579	685,966	241	5,084	691,290
Petrol (litres)	2,447	5,465	8	14	5,487
Scope 1 Total		17,787,463	24,768	135,482	17,947,663
Scope 2					
Electricity (kWh)	70,490,087	31,662,033	19,032	183,979	31,865,044
Scope 3					
Electricity transmission and distribution (kWh)	70,490,087	2,705,410	1,410	15,508	2,723,032
Highways Maintenance Diesel (litres)	396,146	1,015,560	357	7,527	1,023,443
Business travel Claims medium Petrol (miles)	6,982,931	2,259,746	1,676	7,332	2,268,684
Scope 3 Total		3,275,306	2,032	14,859	6,015,160
Total (kg)		52,724,802	45,833	334,320	55,827,866
Total (tonnes)		52,725	46	334	55,828

Table 19: GHG emissions for period 1 April 2010 to 31 March 2011

kg CO_{2e}					
2010/11	Total Units	CO2	CH4	N2O	Total CO _{2e}
Scope 1					
Gas (kWh)	108,573,857	22,266,327	32,572	13,029	22,311,928
Gas Oil (litres)	431,422	1,190,509	1,294	111,609	1,303,412
Kerosene (Litres)	98,646	249,762	543	681	250,985
LPG (Litres)	138,294	211,604	97	249	211,949
Diesel (litres)	432,445	1,108,616	389	8,216	1,117,222
Petrol (litres)	2,074	4,632	7	12	4,651
Large Petrol (miles)	715,189	342,003	172	751	342,926
Scope 1 Total					25,543,072
Scope 2					
Electricity (kWh)	72,857,122	35,130,976	18,943	208,371	35,358,290
Scope 3					
Electricity transmission and distribution (kWh)	72,857,122	2,829,042	1,457	16,757	2,847,256
Highways Maintenance Diesel (litres)	562,784	1,442,753	507	10,693	1,453,952
Business travel Claims medium Petrol (miles)	8,494,025	2,827,576	2,039	8,919	2,838,533
Scope 3 Total					7,139,742
Total (kg)		64,774,757	56,561	362,530	68,041,104
Total (tonnes)		64,775	57	363	68,041

Annex B – Degree day data

Heating degree days for all reporting years are set out in the table below for information. In simple terms, energy consumption for heating (whether gas or electricity) would be expected to be increase as the number of heating degree days increases.

Table 20 Heating degree days for Thames valley Oxford area by year

Year	Heating degree days relative to an external temperature of 15.5 ⁰ C
2010/11	2158.2
2011/12	1920.7
2012/13	2442.2
2013/14	2025.9
2014/15	1887.0
2015/16	1815.6
2016/17	1974.8

Source: Stark Software International Thames Valley Oxford Area
<http://www.degree-days-for-free.co.uk/>