Greenhouse Gas Report

Reporting Year 2020 - 2021

Oxfordshire County Council

Date: October 2021
Owner: Climate Action Team

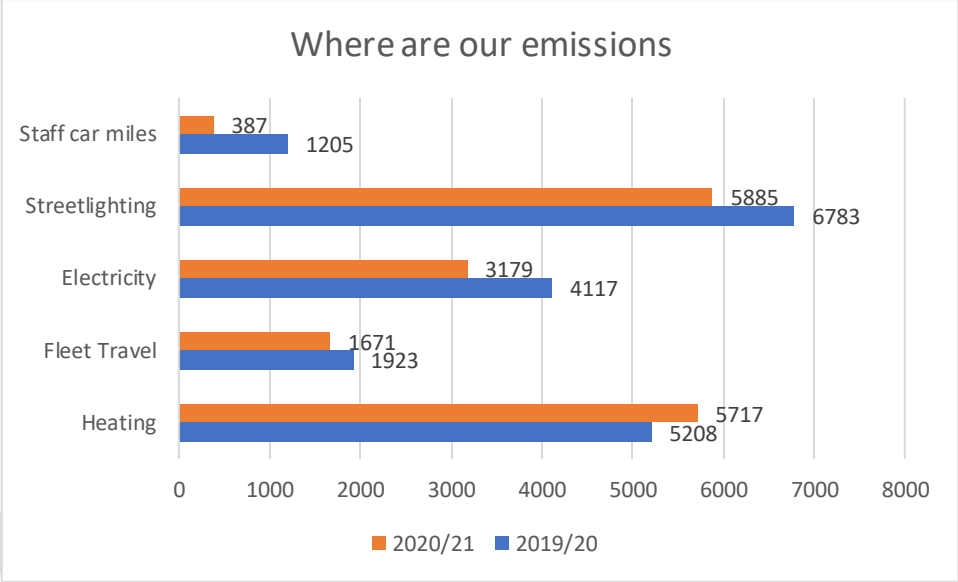
Contents

1. Executive Summary

1.1. During **2020/21** Oxfordshire County Council reduced its carbon emissions by **12%** (2,299 tonnes CO2e) from **19,164 tonnes CO2e** in 2019/20 to **16,865 tonnes CO2e** in 2020/21. This represents a **75.2%** reduction against our baseline in 2010/11.

In 2020/21, **873 tonnes CO2e** of our reduction was due to the electricity grid continued decarbonisation. The remaining **1,436** tonnes CO2e can mostly be attributed to the COVID lockdown and therefore emission levels may bounce back in the following years.

Figure 1 below shows comparison of tonnes of CO2 split by business sector during 2019/20 and 2020/21 (these figures do not include carbon offsetting)



2. Context

2.1. Oxfordshire County Council provides services to residents, businesses and communities across the whole county. We are responsible for around **80%** of local government spending in Oxfordshire. The following core services are provided by the Council:

- adult social care
- services for public health including mental health
- fire and rescue
- roads and transport planning
- waste disposal
- libraries and museums
- coroners' and registration services
- trading standards

2.2. The Council either provides these services directly or commissions them from other organisations. Most of these services are statutory – things we are obliged by law to do.

3. Reporting Period

3.1. This report covers GHG emissions from **April 2020** to **March 2021**

4. Introduction, boundary and conversion factors

4.1. Each year, Oxfordshire County Council publishes details of its greenhouse gas (GHG) emissions in accordance with guidance published by the Department of Business, Energy and Industrial Strategy (BEIS).

4.2. The Council is committed to improving our GHG reporting in line with the latest BEIS guidance. We will be auditing our data in **2020/21**.

4.3. **Figure 2** shows the scope of our reported GHG emissions boundary**.**
The council reports on emissions from its:

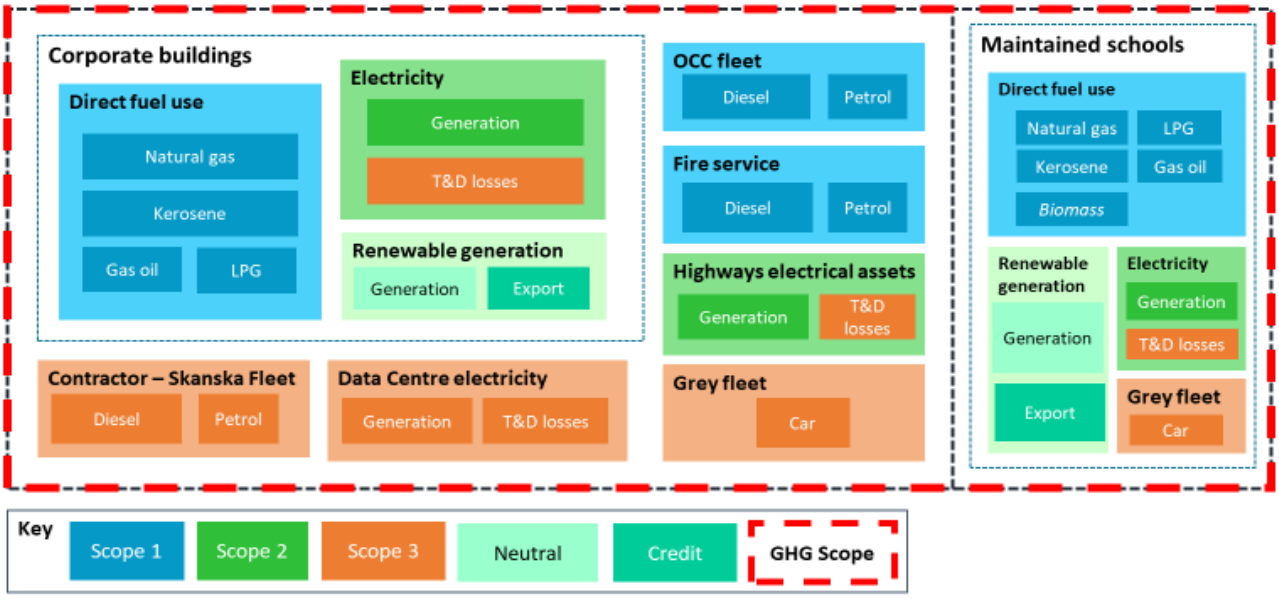
- corporate estate and activities (excluding contractors)
- maintained schools
- Contractors - Skanska highway fleet fuel and outsourced Data Centre electricity consumption.

These have historically been included in our carbon footprint.

4.4. In **2019** the council committed to become carbon neutral for its corporate estate and activities (excluding contractor emissions) by **2030**. This report creates a new category to show the emissions in scope for this target (refer to Section 7).

4.5. The carbon factor methodology applied are the **2020** carbon factors for the emissions generated in Financial year **2020-21** which can be found at: Greenhouse gas reporting: conversion factors 2020 - GOV.UK (www.gov.uk)

Figure 2: OCC GHG Emissions Boundary



5. Greenhouse Gas (GHG Emissions) 2020/21

5.1. **Table 1** shows that for **2020/21** gross emissions from Oxfordshire County Council were **16,865** tonnes of CO2e equivalent (CO2e) split across the three scopes. This includes offsetting from solar exports.

5.2. Our **corporate estate and activities** (the scope of our carbon neutrality target) amounted to **10774** tonnes CO2e (**63.9%)** of the total emissions**.**

5.3. Emissions from **maintained schools** was **5,238** tonnes CO2e (**31.1%** of the total emissions).

5.4. Whereas emissions from fleet used by our highway's **contractors,** Skanska, and electricity consumption by our outsourced Data Centre servers **853 tonnes CO2e**, **5.1%** of total emissions.

Table 1: Total GHG Emissions (Corporate estate and activities, Maintained Schools and Highways contractor fuel and data center)

	Corporate Estate & Activities	Maintained Schools	Contractors (Highways & Data Centres)	Total
Scope 1	2992	3663	-	6656
Scope 2	6801	1506	-	8307
Scope 3	986	132	853	1971
Total Emissions	**10779**	**5301**	**853**	**16934**
Solar Export Corpora	5	64	0	69
Total	**10774**	**5238**	**853**	**16865**

6. Change from Previous Year

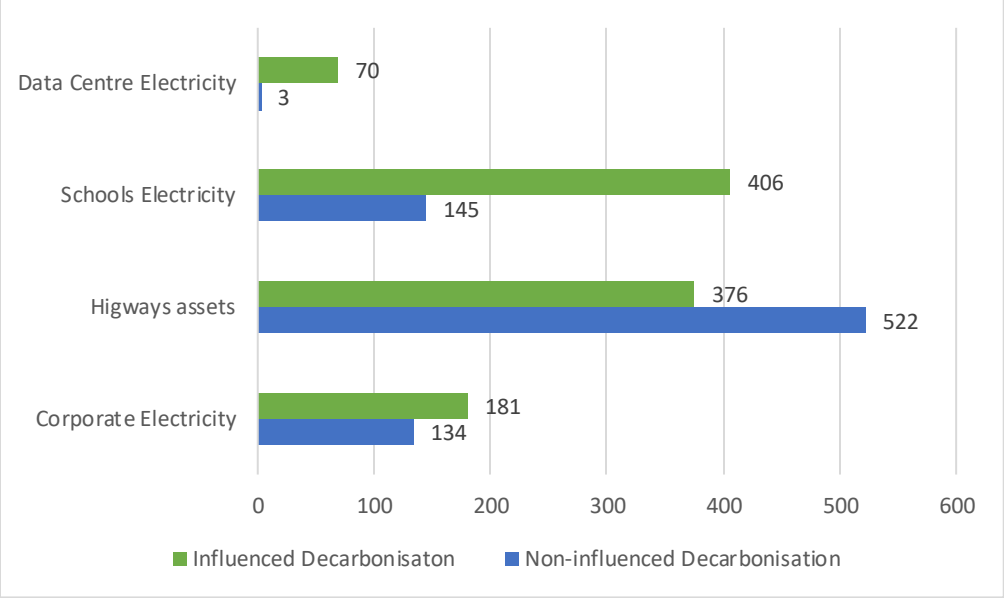
6.1. Total emissions in **2020/21** were **12% lower** than in **2019/20**, a total reduction of **2,299** tonnes CO_2e. Electricity grid **decarbonisation** and annual changes to carbon factors accounted for **863** tonnes CO_2e, **37.5%** of total reduction as compared to **2019/20**.

- Emissions from the Council's **corporate estate and activities** (excluding outsourced contractors and maintained schools) fell from **13,047 tonnes** in **2019/20** to **10774** tonnes in **2020/21**, a reduction of **17% (2,273** tonnes CO_2e). This includes offset from Solar PV exports. Electricity grid **decarbonisation** accounted for **704** tonnes CO_2e i.e., **31%** of total reduction for corporate estate and activities.

- Emissions from **maintained schools** decrease by 0.4**% (22** tonnes CO_2e) from **5,260 tonnes** to **5238 tonnes CO2e** (this includes offset from schools Solar PV exports). Three schools were converted to academies removing **110** tonnes and have therefore been removed from this reporting year. Grid **decarbonisation** reduced emissions from electricity usage by **156** tonnes CO2e. However, heating emissions increased by **547** tonnes CO2e bringing down the overall reduction to just 0.4%. Due to schools remaining open during the COVID lockdown

for essential workers children, emissions did not fall as expected due to additional heating requirement required to maintain air circulation.

- Emissions from the Council's **Contractors** (Skanska highway fleet fuel and outsourced data center electricity consumption) fell by **0.5%** during this period from **858** tonnes in **2019/20** to **853** tonnes CO_2e in **2020/21**. Electricity grid **decarbonisation** accounted for **3** tonnes CO2e. **3.9%** of the total reduction.
- **Figure 3** below shows the impact of non-influenced and influenced decarbonisation.



6.2. Although emissions are expected to bounce back after the COVID restriction end; we do expect some emissions to rise and some to continue to fall.

- As buildings reopen fully gas consumption is likely to increase from the pre-COVID levels due to legislative changes in air handling.
- Street lighting LED conversion will continue to reduce emissions.
- Electricity from property is likely to remain lower than pre-COVID levels due to a decrease in property occupation by staff.
- Emissions from electricity will continue to reduce from grid decarbonisation.
- Staff millage may remain lower than pre-COVID levels due to the use of Teams meetings.

6.3. Gas consumption – annual weather data (degree day data) indicated heating fuel demand should not be significantly affected by weather changes in **2020/21**. However, gas consumption decreased by **426** tonnes CO2e.

A significant proportion of the reduction of electricity consumption this year has been due to the **COVID** lockdown.

Although we saw a reduction in our emissions due to site closures some sites increased their consumption due to **CV19** restrictions to working arrangements and subsequent guidance on ventilation. This is to mitigate the spread of **COVID** resulting in heated fresh air not being re-distributed around buildings.

6.4. **Refer to section 9** for details of the projects and energy efficiency measures that contributed to the decrease in council's GHG emissions in **2020/21**

6.5. **Table 2** below shows the comparison of emissions in **2020/21** against **2019/20**. A further breakdown of consumption at source is detailed in Annex B, C, D & E.

Table 2: Emissions Comparison 2019/20 and 2020/21 (*tonnes CO_2e)*

2020/21 and 2019/20 Comparison tonnes CO2e.			
	2019 20	**2020 21**	**Reduction**
Corporate Estate & Activities	13051	10779	17.4%
Solar Export Corportate (offset)	-4	-5	17.4%
Total Corporate Estate & Activities	**13047**	**10774**	**17.4%**
Schools	5321	5301	0.4%
Solar Export SChools (offset)	-62	-64	-3.5%
Total Schools	**5260**	**5238**	**0.4%**
Contractors	**858**	**853**	**0.5%**
Total Emissions	**19164**	**16865**	**12.0%**

7. Comparison against baseline year and reduction target

Oxfordshire County Council track emissions against a baseline year of **2010/11**.

7..1. **Total emissions** for this year, against a baseline year were **16865** tonnes CO_2e in **2020/21** and **55,862** tonnes of CO_2e in **2010/11.** This represents a decrease of **38,997** tonnes of CO_2e, a decrease of **70%.** An average annual reduction of **7%** per year. This does not include the effect of purchasing green energy in 2010/11 or **REGO** backed electricity in 2020/21.

Although we are purchasing **REGO** backed energy we have chosen not to count this as a carbon reduction as we are committed to reduce our reliance on grid electricity. We have an energy hierarchy approach to energy reduction as set out in our **2020** Climate Action Framework (page 6). See link in section 8.

- Emissions from our **corporate estate and activities excluding contractor emissions & maintained schools (the scope of our carbon neutrality target)** have reduced by **59%** since **2010/11**, an average annual reduction of **5.9%** per year.

  Note: If we include the effect of **REGO** backed electricity in **2010/11** accounting to **12,179** tonnes and **4950** tonnes CO_2e in **2020/21** the reduction would have been **25%** since **2010/11** (**2.5%** per year).

- **Emissions from 2010/11 list of 284 maintained schools** have

reduced by **87%** since the baseline year **2010/11**. **158** schools converting to academies and therefore falling outside the Council's reporting has contributed significantly to this change.

- **Emissions from the remaining 126 maintained schools** (adjusted to remove the effect of schools converting to academies) have reduced by an estimated **28%** since **2010/11**, an average of **2.8%** per year.
- **Our contractor emissions (Skanska fleet fuel and ICT Data Centers)** have reduced by **27%** since **2010/11**; an average annual reduction of **2.7%** per year.

7.2. From October **2020** we pay a premium to purchase all our electricity from certified renewable sources (**REGO** - Renewable Electricity Guarantee of Origin) to support national investment in renewable energy.

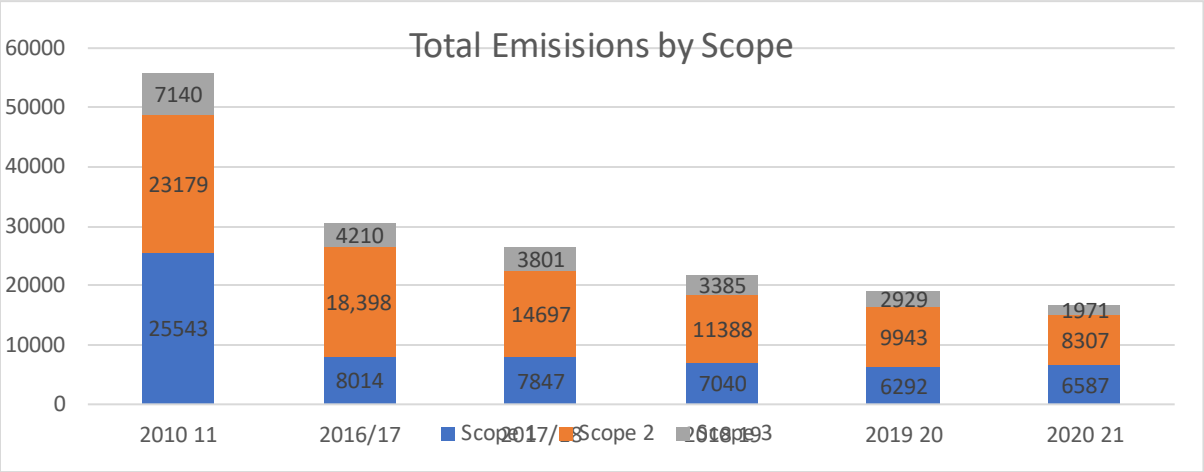
Since **20201/11** the County Council has achieved a **75.2%** reduction in underlying CO2e emissions and an **73%** reduction in emissions after allowing for the purchase of green energy in 2010/11 and **REGO** certified grid renewable electricity in 2020/21.

7.3. **Table 3** below shows the comparison of emissions in **2020/21** against baseline year **2010/11**. A further breakdown of consumption at source is detailed in Annex F.

Table 3: Emissions Comparison 2020/21 and 2010/11

2020/21 and 2010/11 Comparison (Tonnes CO2e)			
	2010/11	**2020 21**	**Reduction**
Corporate Estate & Activities	26511	10779	59.3%
Solar Export Corporate (offset)	-	-5	-
Total Corporate Estates & Activities	**26511**	**10774**	**59.4%**
Academies	32963	0	100%
Maintained Schools	7404	5301	28.4%
Solar Export SChools (offset)	-	-64	-
Total Schools	**40367**	**5238**	**87.0%**
Contractors	1163	853	26.7%
Total Net Emissions	**68041**	**16865**	**75.2%**

Figure 4: Emissions Comparison by scope from 2010/11 to 2020/21



8. Carbon Neutrality Target 2030

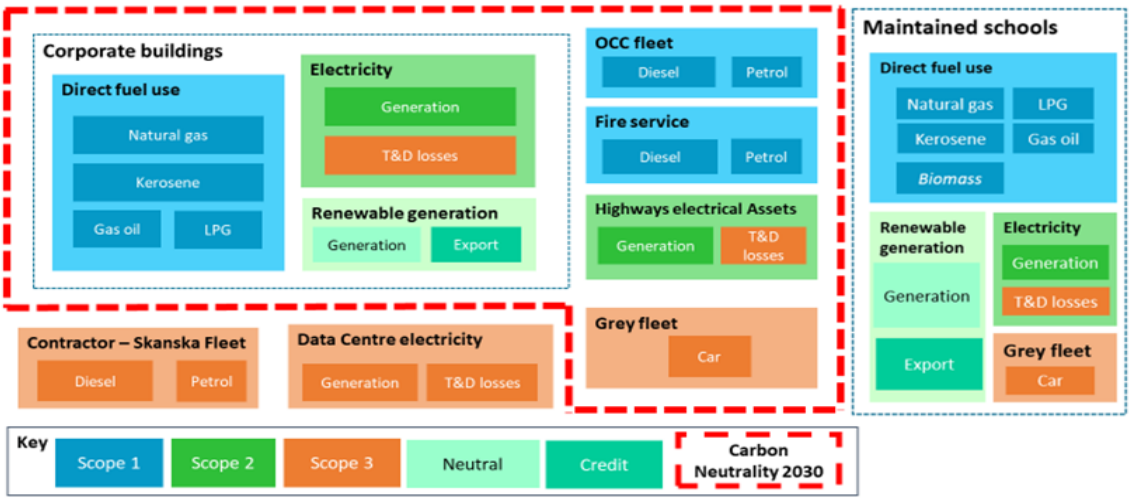
8.1. In **2019** the council committed to become carbon neutral for its corporate estate and activities (excluding contractor and maintained school's emissions) by **2030**[1].

8.2. **Figure 5** below shows the boundary of our Carbon Neutrality **2030** target.

8.3. **Figure 6** shows carbon neutrality performance since baseline year **2010/11**

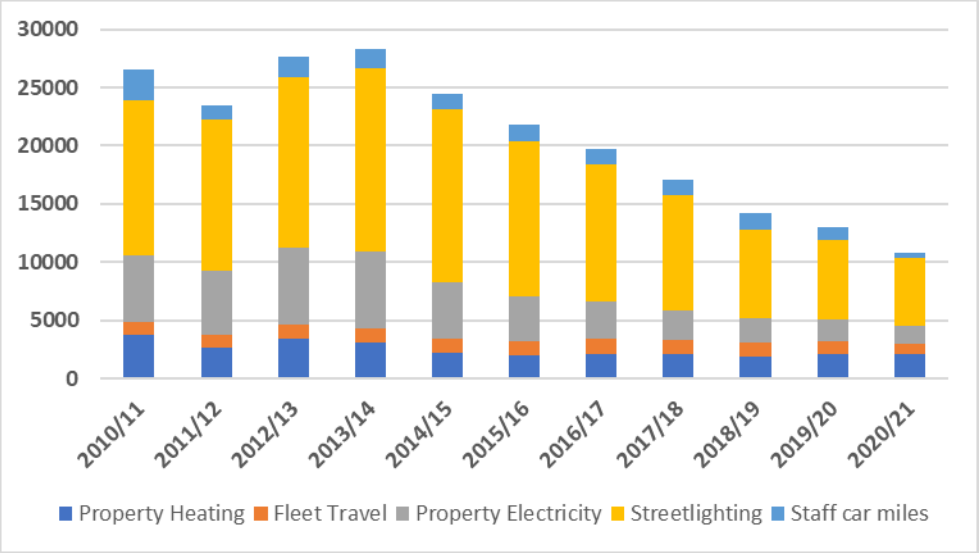
8.4. The council is in the process of reviewing its annual targets to meet this objective, and currently tracking progress against a **6%** annual reduction target.

Figure 5: OCC Carbon Neutrality 2030 Target Boundary



[1] Further information about the council's carbon reduction strategy:
Climate action in Oxfordshire | Oxfordshire County Council
What we are doing to reduce our greenhouse gas emissions | Oxfordshire County Council
2020 Climate Action Framework (oxfordshire.gov.uk)

Figure 6: Carbon Neutrality performance



9. Measurement, data quality, methodology and refinements

9.1. Oxfordshire County Council wish to collect high-quality data and has invested in AMR (Automatic meter reading), loggers and meter upgrades.

9.2. Our data quality is as follows:

- **55%** of our electricity data is from actual meter data and the remaining **45%** is based on invoiced annual consumption.
- **100%** of our oil data is from delivered fuel invoices/ Fuel card data
- **38%** of our gas data is from actual meter data and **62%** is based on invoiced annual consumption.
- Street lighting data is calculated from *Elexon BSCP520 –Unmetered supplies Registered in SMRS*
- Mileage data for business miles is collected from claim forms (as is cycle mileage) through staff expenses claims.
- We also collect motorbike business mileage through staff expenses claims.

10. Energy Efficiency measures and carbon reduction projects 2020/21

Below is a list of a some of the energy efficiency projects undertaken to reduce both

energy and carbon emissions.

- **8,330** street lighting lanterns have been replaced with LEDs as part of an ongoing programme to convert **51,000** lanterns by **2025/26**. This has resulted in savings **3,193,514** kWh in electricity usage (**808** tonnes CO2e). Note: some of the CO2 savings is because of grid **decarbonisation**.
- New energy efficient boilers were installed at Carswell School, Enstone School, Hailey School and St Swithun's School. Based on a **10%** reduction in gas consumption a reduction of **10.7** tonnes CO2e was expected. However, due to air handling changes to mitigate the **COVID** risks additional heating was required which reduced the reduction to **2.1** tonnes CO2e.

Below is a list of the some of the carbon reduction measures undertaken to reduce carbon emissions.

- Over the past 12 months EV additional **10** EV charging points have been installed at **3** sites. This includes a mix of 7kW/22kW dual wall mount units and free-standing posts.

Annex A – GHG Data Breakdown at Source

Scope	Energy source	Units	Quantity	CO2
1	Corporate gas	kWh	11500154	2115
	Voluntary Aided Schools gas	kWh	1137539	209
	Church of England funded Schools gas	kWh	5838264	1073
	Catholic Church Funded Schools gas	kWh	385519	71
	Community Schools gas	kWh	9534811	1753
	Total gas	**kWh**	**28396287**	**5221**
	Corporate gas oil	litres	5586	15
	Church of England funded Schools oil	litres	93990	259
	Catholic Church Funded Schools oil		7329	20
	Foundation Schools gas oil	litres	14177	39
	Total gas oil	**litres**	**155539**	**429**
	Corporate burning oil (kerosene)	litres	0	0
	Community Schools (kerosene)	litres	9245	23
	Church of England funded Schools	litres	24254	62
	Voluntary Aided School burning oil	litres	7645	19
	Total burning oil	litres	**41144**	**105**
	Corporate LPG	litres	8132	13
	Community Schools LPG	litres	7413	12
	Foundtion Schools LPG	litres	9151	14
	Church of England funded Schools LPG	litres	8345	13
	Total LPG	**litres**	**33041**	**51**
	Corporate diesel - Fire Service	litres	142923	384
	Corporate diesel - OCC fleet	litres	143110	385
	Schools Mini Bus fuel	litres	24773	67
	Total diesel	**litres**	**310806**	**835**
	Corporate petrol - OCC fleet	litres	4772	11
	Corporate petrol - Fire Service	litres	1489	3
	Total petrol	**litres**	**6261**	**14**
	Corporate fuel oil	**litres**	25	0
	Fire Service fuel oil	**litres**	1	0
	Vehicle fuel oil	**litres**	**26**	**0**

2	Corporate electricity	kWh	5,204,730	1,213
	Travellers Sites	kWh	722,938	169
	Community Schools electricity	kWh	2,985,327	696
	Foundation Schools electricity	kWh	119,430	28
	Voluntary Controlled Schools electricity	kWh	33,216	8
	Voluntary Aided School electricity	kWh	356,962	83
	Church of England funded Schools	kWh	2,763,727	644
	Catholic Church Funded Schools	kWh	201,468	47
	Street lighting electricity	kWh	23,244,363	5,419
	Total electricity	**kWh**	**35,632,161**	**8,307**
3	Corporate Average unknown car (miles)	Miles	1,392,986	384
	Community Schools Average unknown car (miles)	Miles	5,144	1
	Foundation Schools Average unknown car (miles)	Miles	390	0
	Casual staff Schools Average unknown car (miles)	Miles	0	0
	Voluntary Controlled Schools Average unknown car (miles)	Miles	565	0
	Church of England funded Schools Average unknown car (miles)	Miles	2,181	1
	Catholic Church Funded Schools Average unknown car (miles)	Miles	0	0
	Voluntary Aided School Average unknown car (miles)	Miles	0	0
	Total OCC business travel Average unknown car (miles)	Miles	1,401,266	387
	Corporate business travel Motorbike	**Miles**	**3,026**	**1**
	Skanska diesel	Miles	248,472	668
	Total Skanska Diesel	**Miles**	**248,472**	**668**
	Skanska petrol	Miles	66,129	153
	Total Skanska Petrol	**Miles**	**66,129**	**153**
	Electricity Transmission losses	kWh	**35,799,925**	**718**
	Data Centre Contractor Electricity	kWh	**127,263**	**30**
	Corporate Vacant Electricity	kWh	**40,501**	**9**
	Corporate Vacant Gas	**kWh**	**30864**	**6**
	Solar Export Corporate	kWh	-22686	-5
	Solar Export Schools	kWh	-273560	-64
	Total Solar Export	kWh	-296246	-69
	Total Emissions			**16,865**

Annex B – Total GHG emissions summary (Corporate Estate, Contractors & Schools)

Annex B. Total GHG emissions for period 1 April 2020 to 31 March 2021					
2020/19	**Total Units**	**CO_2**	**CH_4**	**N_2O**	**Total**
Scope 1					
Gas (kWh)	28,396,287	5,211,287	7,099	2,840	5,221,225
Gas Oil (litres)	155,539	423,715	439	4,786	428,939
Kerosene (litres)	41,144	104,005	258	259	104,522
LPG (litres)	33,041	51,321	37	33	51,391
Diesel (litres)	310,806	824,388	78	10,940	835,406
Petrol (litres)	6,261	14,411	43	38	14,492
Fuel Oil (litres)	26	82	0	0	83
Scope 1 Total		6,629,209	7,953	18,896	6,656,058
Scope 2					
Electricity (kWh)	35,632,161	8,232,454	25,655	49,172	8,307,282
Scope 3					
Electricity transmission	35,799,925	711,345	2,148	4,296	717,788
Contractor diesel	248,472	659,052	62	8,746	667,860
Contractor petrol (litres)	66,129	152,213	450	404	153,067
Business Travel	1,401,266	383,695	364	2,466	386,525
Business travel Motor	3,026	336	5	2	552
Electricity (kWh)	167,764	38,760	121	232	39,112
Gas (kWh)	30,864	5,664	8	3	5,675
Scope 3 Total		1,951,065	3,158	16,149	1,970,581
Scope 1, 2 & 3 Total (kg)		16812728	36766	84218	16933921
Carbon Offsetting (Solar)					-69067
Scope 1&2 Total (tonnes)		**14862**	**34**	**68**	**16865**

Annex C – Corporate Estate GHG emissions

Annex C. Corporate GHG emissions for period 1 April 2020 to 31 March 2021					
202/21	**Total Units**	**CO_2**	**CH_4**	**N_2O**	**Total**
Scope 1					
Gas (kWh)	11,500,154	2,110,508	2,875	1,150	2,114,533
Gas Oil (litres)	5,586	15,217	16	172	15,405
Kerosene (litres)	0	0	0	0	0
LPG (litres)	8,132	12,631	9	8	12,648
Diesel (litres)	310,806	824,388	78	10,940	835,406
Petrol (litres)	6,261	14,411	43	38	14,492
Fuel Oil (litres)	26	82	0	0	0
Scope 1 Total		2,977,238	3,020	12,309	2,992,485
Scope 2					
Electricity (kWh)	29,172,031	6,739,906	21,004	40,257	6,801,167
Scope 3					
Electricity transmission and distribution (kWh)	29,212,532	580,453	1,753	3,506	585,711
Vacant Elec	40,501	9,357	29	56	9,442
Vacant Gas	30,864	5,664	8	3	5,675
Business Travel Average unknown car (miles)	1,392,986	381,427	362	2,452	384,241
Motorbike	3,026	336	5	2	552
Scope 3 Total		977,238	2,157	6,018	985,622
Total (kg)		10,694,383	26,181	58,584	10,779,274
Offsetting (Solar)					-5
Total (tonnes)		**10,694**	**26**	**59**	**10,774**

Annex D - Maintained schools GHG emissions

Annex D. Schools GHG emissions for period 1 April 2020 to 31 March 2021					
2020/21	**Total Units**	**CO_2**	**CH_4**	**N_2O**	**Total**
Scope 1					
Gas (kWh)	16,896,133	3,100,778	4,224	1,690	3,106,692
Gas Oil (litres)	149,953	408,497	423	4,614	413,534
Kerosene (litres)	41,144	104,005	258	259	104,522
LPG (litres)	24,909	38,690	28	25	38,743
Scope 1 Total		3,651,970	4,933	6,588	3,663,491
Scope 2					
Electricity (kWh)	6,460,130	1,492,548	4,651	8,915	1,506,115
Scope 3					
Electricity transmission and distribution (kWh)	6,460,130	128,363	388	775	129,526
Business Travel Average unknown car	8,280	2,267	2	15	2,284
Scope 3 Total		130,630	390	790	131,810
Total (kg)		5,275,149	9,974	16,292	5,301,415
Offsetting (Solar)					-63,778
Total (tonnes)		**5,275**	**10**	**16**	**5,238**

Annex E - Contractor GHG emissions

Annex E. Contractor GHG emissions for period 1 April 2020 to 31 March 2021					
2020/21	**Total Units**	**CO_2**	**CH_4**	**N_2O**	**Total**
Scope 1					
Gas (kWh)	0	0	0	0	0
Gas Oil (litres)	0	0	0	0	0
Kerosene (litres)	0	0	0	0	0
LPG (litres)	0	0	0	0	0
Diesel (litres)	0	0	0	0	0
Petrol (litres)	0	0	0	0	0
Scope 1 Total	0	0	0	0	0
Scope 2					
Electricity (kWh)	0	0	0	0	0
Scope 3					
Electricity (kWh)	127,263	29,403	92	176	29,670
Diesel (litres)	248,472	659,052	62	8,746	667,860
Petrol (litres)	66,129	152,213	450	404	153,067
Electricity transmission and distribution (kWh)	127,263	2,529	8	15	2,552
Scope 3 Total	569,127	843,197	611	9,341	853,149
Total (kg)	569,127				853,149
Total (tonnes)					**853**

Annex F - Total corporate GHG CO2 Emissions Summary

Annex F: GHG emissions for period 1 April 2010 to 31 March 2021											
Tonnes of CO2e											
	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
Scope 1											
Gas/Kerosene/Oil/LPG/Petrol/Diesel	25,543	17,948	22,293	19,356	10,873	9,088	8,076	7,954	7,119	6,364	6,656
Scope 2											
Purchased Electricity	35,358	31,865	33,264	31,100	25,228	21,619	18,398	14,697	11,388	9,943	8,307
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	3,801	3,385	2,929	1,971
Total Gross Emissions	**68,041**	**55,828**	**61,451**	**57,023**	**41,688**	**35,562**	**30,684**	**26,452**	**21,893**	**19,236**	**16,934**
Carbon offsets	0	0	0	0	0	0	0	0	0	0	0
Green tariff	12,179	0	0	0	0	0	0	0	0	0	0
Renewable electricity	0.00	0.00	35.00	69.64	93.81	57.62	62.58	107.04	79.22	71.53	69.07
Total annual net emissions	**55,862**	**55,828**	**61,416**	**56,953**	**41,595**	**35,505**	**30,621**	**26,345**	**21,814**	**19,164**	**16,865**

Annex G – Carbon neutrality GHG CO2 Emissions Summary

Annex G: Carbon Neutrality GHG emissions for period 1 April 2010 to 31 March 2021											
Tonnes of CO2e											
	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
Scope 1											
Gas	3,652	2,502	3,335	2,933	2,153	1,970	2,006	2,061	1,867	2,088	2,115
Kerosene	100	10	9	9	5	7	-	-	-	-	-
Gas Oil	26	51	82	90	50	29	95	27	13	2	15
LPG	-	84	57	58	40	9	-	9	3	1	13
Fire Service Diesel	571	542	553	543	479	583	648	635	626	588	384
Fire Service Petrol	5	4	1	1	7	-	5	3	3	3	3
OCC Fleet Diesel	567	597	601	682	739	608	648	568	586	539	451
OCC Fleet Petrol	-	-	4	1	7	5	5	19	35	38	11
Fire Service Fuel Oil	-	-	-	-	-	-	-	-	-	-	0.00
Corporate Fuel Oil	-	-	-	-	-	-	-	-	-	-	0.08
Scope 2											
Electricity Corporate Buidlings	5,215	5,014	6,162	6,190	4,412	3,580	2,916	2,280	1,881	1,683	1,382
Electricity Highways Assets (Street Lighting)	12,179	11,969	13,632	14,626	13,623	12,329	10,801	9,123	6,993	6,252	5,419
Scope 3											
Corporate T&D losses	469	449	460	453	386	296	264	213	162	143	120
Highways Assets T&D losses	1,094	1,075	1,018	1,071	1,191	1,018	977	853	603	531	466
Grey Fleet (unknown car / fuel)	2,633	1,194	1,729	1,673	1,377	1,385	1,311	1,346	1,411	1,182	385
Vacant Properties Elec	-	-	-	-	-	-	-	-	-	-	9
Vacant Properties Gas	-	-	-	-	-	-	-	-	-	-	6
Corporate Fuel oil	-	-	-	-	-	-	-	-	-	0.0	0.1
Carbon Offsetting											
Green tariff	-12,179									0.00	-4950
Renewable electricity generation										0.00	0.00
Renewable electricity export	0.00	0.00	0.00	0.00	-25.11	-5.04	-5.73	-4.74	-4.40	-3.99	-5.29
Total annual net emissions	**14,331**	**23,491**	**27,644**	**28,328**	**24,444**	**21,813**	**19,671**	**17,132**	**14,179**	**13,047**	**10,774**

Annex H - Operational Scope breakdown

- Central Offices (Scopes 1 and 2)
- Fire Stations (Scopes 1 and 2)
- Libraries (Scopes 1 and 2)
- Highway Depots (Scope 1 and 2)
- EV Fleet (Scope 2)
- Fleet (Scope 1)
- Business miles (including cycling)- corporate estate and activities & schools (Scope 3)
- Gypsy and Travelers sites communal lit areas (Scope 2)
- Maintained community schools (Scope 1 and 2)
- VC and Foundation Schools (Scope 1 and 2)
- Day Centers (Scope 1 and 2)
- Children's Homes (Scope 1 and 2)
- Highways furniture and car parks (Scope 2)
- Street lighting and traffic signals (Scope 2)
- Skanska Fleet (Scope 3)
- Data Centres (Scope 3)
- Transmission and Distribution (Scope 3)
- Vacant properties (Scope 3)

Not included in current reporting and reasoning

We wish to increase the data we report in our GHG reporting. We do not currently include the following in our reporting:

- Leisure Centers - Scope 1 & 2 - complex use arrangements, in the main leased to Districts and reported in their scopes
- Academy Schools - not in scope - leased on 125-year leases to separate operational trusts. Data not Available.
- Care homes – Scope 1 & 2 - complex use arrangements as long term leased to third parties - currently no data available
- Water - Scope 3 - currently no reliable data available
- Supply Chain - Scope 3 - currently reporting Skanska fleet Fuel and Data Centre. No further data currently collected.
- Staff Commuting to work - Scope 3 - no data available
- Business mileage from public transport and walking - Scope 3 - currently no data available.

Annex I – Operational Scopes

<table>
<tr><th>Scope One</th><th>Scope Two</th><th>Scope Three</th><th>Not included</th></tr>
<tr><td>Fuel used to heat our buildings (e.g. natural gas, gas oil, kerosene and liquid petroleum gas)</td><td rowspan="4">Purchased electricity for our buildings and other electricity consuming sites (e.g. offices, leisure centres, depots, car park and public conveniences).</td><td rowspan="2">Electricity (transmissions and distribution factors)</td><td>Perfluorocarbons (PFC), hydrofluorocarbons (HFC) and sulphur hexafluoride (SF_6)</td></tr>
<tr><td rowspan="2">Fuel used in council vehicle fleet and also to power non-road going vehicles and plant such as lawn-mowers and, chippers.</td><td>Staff commuting</td></tr>
<tr><td>Business mileage by car</td><td>Emissions from Council operational waste deposited in landfill sites</td></tr>
<tr><td rowspan="2">Fuel used in waste collection vehicle fleet</td><td>Business mileage by public transport (bus and train)</td><td>Emissions from Leased commercial properties or housing stock where tenants are paying energy/water bills.</td></tr>
<tr><td>Water consumed (supply and treatment)</td><td>Total indirect emissions: e.g. due to upstream emissions from production and delivery of fuel to power stations or transport fuel stations.</td></tr>
<tr><td></td><td>Half-hourly metered and non-half-hourly metered electricity supplies (ie Meter profile classes 01-08, HH and Unmetered Supplies)</td><td></td><td>Emissions from goods and services purchased and employed to conduct council business and operations. Council financial investments.</td></tr>
</table>