

Epping Forest District Council Greenhouse Gas (GHG) Emissions 2020

GHG emissions data for period 1 April 2019 to 31 March 2020 compared to previous and baseline years			
	Global tonnes of Carbon Dioxide Equivalent (CO₂e)		
	2019/20	2018/2019	Base Year 2008/2009
Scope 1	357.53	423.45	586.23
Scope 2	267.51	296.81	831.02
Scope 3	104.30	116.31	2467.57
Total gross emissions	729.34	836.67	3884.82
Carbon offsets	Nil	Nil	Nil
Green tariff	56.50	58.79	Nil
Total annual net emissions	672.84	777.88	3884.82

Supporting explanations

1. Company Information

Epping Forest District Council is a Local Authority in the UK. Registered address is Civic Offices, High Street, Epping, Essex CM16 4BZ.

2. Reporting period

1 April 2019 – 31 March 2020

3. Change in Emissions

This year's GHG report shows a 14% decrease in Epping Forest District Council's greenhouse gas emissions.

Comparing previous year's figures:

The Scope 1 emissions for 2019/20 have decreased by 16%

The Scope 2 emissions for 2019/20 have decreased by 10%

The Scope 3 emissions for 2019/20 have decreased by 10%

Total annual emissions for 2019/20 have decreased by 14%

The reduction in Scope 1 emissions is due to 6% reduction in gas consumption and a reduction in fuel consumption of the owned fleet. The main impact on fuel reduction is likely caused by reduced journeys at the end of the financial year due to the COVID-19 pandemic.

The reduction in Scope 2 emissions is mainly due to the 10% reduction in the conversion factor used to convert kWh to CO₂e, as the actual reduction in electricity consumption was negligible. The change in carbon factor is due to the continued reduction in coal reliance and increase in renewable energy systems being connected to the national grid reducing the carbon emissions per kWh consumed.

Overall the number of degree days increased by 7% in 2019/20, which is a likely cause of localised increases in gas and electricity heating usage. However, most of the sites had significant reduction in occupant usage in March due to the COVID-19 pandemic. The pandemic is also likely to have caused a reduction in business travel during March.

COVID-19 is likely to greatly reduce Epping Forest District Council's energy usage and emissions over the 2020/21 financial year. The Civic Offices were already showing half the usual electricity use early in the financial year, so it is unlikely that emissions in the next report will be comparable.

Below is a more detailed look at each of the Council Owned facilities:

Civic Offices

Gas and electricity usage decreased by a negligible amount.

Approximately 1,800 kWh of electricity was consumed on site in 2019/20 to charge fleet electric vehicles to reduce overall carbon emissions of their Internal Combustion Engine (ICE) equivalents.

Oakwood Hill Depot

Gas usage reduced by 44% compared to the previous financial year, this is likely due to redevelopment of the building and the temporary seasonal heating being outsourced to hired gas heaters during works.

Electricity usage increased by 20%, likely due to powered used equipment during the redevelopment, and increased staff usage before COVID-19.

Epping Town Depot

Electricity has increased by 7%, likely linked to an increase in electric heating requirements.

Waltham Abbey Museum

Gas usage increased by 8% over the previous year, likely linked to an increase in heating requirements.

Electricity usage increased by 2%, this is a negligible amount but may indicate a higher occupant count throughout the year considering building closure through most of March.

Pyrls Lane Nursery

Gas and electricity usage decreased by 18% and 25% respectively. This is likely due to the building closure but would include background services. Both meters are now removed.

Limes Centre

The electricity usage has decreased by 13%. Part of this is likely due to building closure throughout most of March.

Townmead Depot

The electricity usage increased 95% as the building was gradually occupied and increased in usage from June onwards.

Solar PV readings

The Civic Offices Solar PV energy production fell by 4%. This is most likely due to differing weather patterns between this year and last.

Due to missing data at the Limes Centre, the energy generated through the Solar PV system was estimated based on the approximate 4% reduction shown at the Civic Offices.

4. Approach

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

5. Organisation Boundary

We have used the financial control approach.

6. Operational Scopes

The Government defines scopes in the following ways:

Scope 1: Emissions from sources that are owned or controlled by the reporting company. Also known as direct emissions.

Scope 2: Emissions that are a consequence of the operations of the reporting company but occur from sources owned or controlled by another company e.g. as a consequence of the import of electricity. Also known as indirect emissions.

Scope 3: Emissions that are a consequence of all other activities which release emissions into the atmosphere as a consequence of your actions, which occur at sources which you do not own or control and which are not classed as scope 2 emissions. As of 2013, scope 3 also includes losses through transmission and distribution of purchased electricity.

Breakdown of the 2019/20 financial year	
	GHG emissions in tonnes of CO₂e
Scope 1	
Gas Consumption	172.52
Owned Transport	185.01
Total Scope 1	357.53
Scope 2	
Purchased Electricity	267.51
Total Scope 2	267.51
Significant Scope 3	
Business Travel	81.59
Losses through transmission and distribution from scope 2 and scope 3 electricity purchase	22.71
Total Significant Scope 3	104.30

7. Baseline

Our baseline year is financial year 2008/2009. We have used a “fixed base year” approach, which is a fixed point in the past against which to compare current emissions.

8. Target

The Council has declared a climate emergency and has pledged to do everything in its power to be carbon neutral by 2030. A Climate Change Officer has been appointed and is dedicated to developing and implementing an action plan to deliver this ambitious objective. This officer will, amongst other climate change objectives, have responsibility for reducing the carbon footprint of the Councils own estate and business operations and services.

9. Carbon Offsets and Green Tariffs

Epping Forest District Council does not currently purchase electricity or gas through a green tariff; neither does the Council purchase carbon credits to offset its GHG emissions. The Council has 2 buildings that use solar PV, the main Civic Offices in Epping, which began producing electricity in 2016 and a small community centre (The Limes Centre), that are included in this report.

Appendix A – Year-on-year overview

GHG calculations as submitted from 2008 to 2019.

	GHG emissions data year on year As submitted										
	Global tonnes of Carbon Dioxide Equivalent (CO₂e)										
	2019/20	2018/19	2017/18	2016/17*	2015/16	2014/15	2013/14	2012/13	2011/12	2010/11	Base Year 2008/09
Scope 1	357.53	423.45	434.57	472.02	471.66	433.74	490.15	536.52	428.30	447.34	586.23
Scope 2	267.51	296.81	368.74	449.53	430.71	551.60	585.47	588.85	719.71	818.72	831.02
Scope 3	104.30	116.31	137.68	154.41	1905.58	2152.10	2101.83	2216.46	2320.42	2268.68	2467.57
Total gross emissions	729.34	836.57	940.99	1075.96	2807.95	3137.44	3177.45	3341.83	3468.43	3534.74	3884.82
Carbon offsets	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Green tariff	56.50	58.79	39.55	49.34	1.77	0.16	Nil	Nil	Nil	Nil	Nil
Total annual net emissions	672.84	777.78	901.44	1026.62	2806.18	3137.28	3177.45	3341.83	3468.43	3534.74	3884.82

*Calculations before 2016/17 included data from some of the leisure centres. This GHG data is now being calculated by the leisure centre operators and therefore is not included in the EFDC data to avoid double counting. Please see the 2016/17 report for further information.