

Epping Forest District Council Greenhouse Gas (GHG) Emissions 2020/21

GHG emissions data for period 1 April 2020 to 31 March 2021		
	Global tonnes of Carbon Dioxide Equivalent (CO ₂ e)	
	2020/21	Base Year 2018/2019
Scope 1	1190	1297
Scope 2	556	770
Scope 3	85	177
Total gross emissions	1830	2339
Carbon offsets	Nil	Nil
Green tariff	Nil	Nil
Total annual net emissions	1830	2340

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

The emissions baseline has been recalculated to include a wider scope of buildings than the previous 2008/09 baseline. This will give a more comprehensive calculation of Epping Forest District Council's carbon emissions and align with the baseline for the Council's draft Climate Change Action Plan.

The new baseline is for the 2018/19 financial year to consider the most up to date data sets before the COVID-19 pandemic altered normal working patterns. The 2008/09 baseline is included in Appendix 1 for reference.

This year's GHG report shows a 22% decrease in Epping Forest District Council's greenhouse gas emissions from the recalculated baseline.

Comparing baseline figures:

The Scope 1 emissions for 2020/21 have decreased by 8%.

The Scope 2 emissions for 2020/21 have decreased by 28%.

The Scope 3 emissions for 2020/21 have decreased by 52%.

Total emissions for 2020/21 have decreased by 22%.

The reduction in Scope 1 emissions is due to an overall reduction in gas consumption and a reduction in fuel consumption of the owned fleet. The owned vehicle fleet would have been carrying out essential works such as housing maintenance therefore the reduction in travel is not as significant as for Scope 3 business travel.

The reduction in Scope 2 emissions is partly due to the 18% reduction in the conversion factor used to convert kWh to CO₂e since 2018, but also due to the reduction in electricity consumption most likely due to lower building occupation and building closures during the COVID-19 pandemic. 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.

The Scope 3 emissions have decreased by 52% this is because of a marked reduction in business travel due to the COVID-19 pandemic.

The number of degree days increased by 15% compared to the base line year of 2018/19, 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 due to the COVID-19 pandemic.

Below is a more detailed look at significant changes in utilities usage:

Civic Offices

Gas and electricity usage decreased by 70% and 26% respectively.

This was because of closure of the civic offices due to refurbishment as well as decreased occupancy and closure of the Conder building because of the COVID-19 pandemic. The decrease in gas is greater than for electricity as baseline usage of electricity for the server and other services would still be required.

Oakwood Hill Depot

Gas usage had a negligible change from the baseline year; however, electricity has increased by 19% from the baseline year. This because of additional floor space being added to the building and increased occupation since 2018/19.

Epping Town Depot

Electricity has decreased by 36% as the building was closed due to COVID-19.

Waltham Abbey Museum

Gas usage increased by 41% compared to the baseline year, likely linked to an increase in heating requirements in 2020/21. The heating and humidification would not have decreased due to the pandemic because of the need to maintain a suitable environment for the artefacts.

Electricity usage decreased by 21% because of decreased occupancy during the pandemic.

Limes Centre

The electricity usage has decreased by 33% due to closure during the pandemic.

Townmead Depot

The electricity usage increased 107% since the baseline year, this will be because of the addition of Building 21 that completed in June 2019 and also the increase in heating demand where heating in the building is electric.

4. Approach

We have followed the Government's most recent guidance on how to measure and report greenhouse gas emissions and have used the 2020 UK Government's Conversion Factors.

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. The council includes transmission and distribution losses as well as business travel in its scope 3 emissions.

Breakdown of the 2020/21 financial year	
	GHG emissions in tonnes of CO₂e
Scope 1	
Gas Consumption	982
Owned Transport	208
Total Scope 1	1190
Scope 2	
Purchased Electricity	556
Total Scope 2	556
Significant Scope 3	
Business Travel	35
Losses through transmission and distribution from scope 2 and scope 3 electricity purchase	50
Total Significant Scope 3	85

Renewable electricity generated from owned sources: 1910 kWh is estimated to have been generated in 2020/21 this is based on the Limes Centre MSC Certificate rating as meter readings were not available. 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.

The Civic Offices Solar PV energy production reading is not available this year however, this will be greatly reduced from last year because of the panels being stored and moved to a different location during the refurbishment of the offices.

7. Baseline

Our baseline year is financial year 2018/2019. This was recalculated to include further council operational buildings, communal lighting and sheltered housing.

8. Target

The Council has declared a climate emergency and has pledged to do everything in its power to become carbon neutral by 2030.

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.

Appendix 1 – Base year change summary

GHG emissions data year on year As submitted			
	Global tonnes of Carbon Dioxide Equivalent (CO₂e)		
	2020/21	Current Base Year 2018/19	Previous Base Year 2008/09
Scope 1	1190	1297	586
Scope 2	556	770	831
Scope 3	85	177	2468
Total gross emissions	1830	2339	3885
Carbon offsets	Nil	Nil	Nil
Green tariff	Nil	Nil	Nil
Total annual net emissions	1830	2339	3885

The Scope 3 emissions for the 2008/09 are higher than for the 2018/19 as this includes energy consumption from leisure centres. Scope 1 and 2 have increased from the 2008/09 base year as further Council owned buildings have been included in the recalculation this includes the council's usage at North Weald Airfield, other small office locations, sheltered housing, communal lighting in social housing.