

Dartford Borough Council Greenhouse Gas Emissions Report 2017 – 2018

This report is produced to make available details of Dartford Borough Council's greenhouse gas emissions and to comply with a UK Government request that Local Authorities measure and report the greenhouse gas emissions (GHG) from their own estate and operations.

The data presented in this report relates to the reporting period 1st April 2016 to 31st March 2018. We have used the web based tool developed by Carbon Smart, using conversion factors calculated by Ricardo – AEA. The changes in the UK electricity conversion factors and the baseline re-calculation were included in the 2012/13 report. This was in accordance with the guidance issued to Local Authorities to ensure consistency between organisations.

The data presented in this report takes all the additional greenhouse gas release into account and quotes emissions in terms of carbon dioxide equivalent (CO₂e).

The baseline year used for the Greenhouse Gas Report is 2008/2009. Emissions have been monitored against the base year and published annually.

We have followed government guidance on how to measure and report greenhouse gas emissions. Government recommends identifying and categorising emissions released into three groups or scopes.

Operational Scopes;

Scope One (direct emissions)	Scope Two (energy indirect)	Scope Three (other indirect)	Not included
Fuel used to heat our buildings (e.g. natural gas)	Purchased electricity for our buildings and other electricity consuming sites (e.g. offices, car parks and public conveniences)	Electricity (transmission and distribution factors)	Staff commuting
Fuel used in council vehicle fleet also to power non road going vehicles such as lawn mowers & chippers		Business mileage by car	Business mileage by public transport

Fuel used in waste collection vehicle fleet			Water consumed (supply and treatment)
			Emissions from leased commercial properties

	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/2018
Scope 1*	1468	1175	1056	866	1403	1261	1183	1231	1069	990
Scope 2 **	1261	1468	782	1002	1049	944	927	703	638	537
Scope 3 ***	851	884	718	721	118	113	106	89	85	77
Total gross emissions	3580	3527	2556	2502	2570	2318	2216	2023	1792	1604
Carbon offset										
Green tariffs										
Total annual emissions	3580	3527	2556	2502	2570	2318	2216	2023	1792	1604
Reduction compared to previous year %	n/a	1.5%	27.5 %	2.11 %	- 2.71 %	9.8%	4.70 %	9%	11%	10%
Reduction compared to base year %	n/a	1.15 %	28.60 %	30.1 %	28.21 %	35.2 %	38.29 %	43%	50%	57%

Table 1: GHG emissions data for period 2008/09 to 2017/18 (lower is better)

*2016/17, 2015/16, 2014/15, 2013/14 and 2012/13 figure includes fuel used from contractors waste and recycling figures – in 2011/12 this had been included in Scope 3. For 2017/18 the fuel used from contractors waste and recycling figures was not supplied from the operative so the figures 2017/18 have been based on 2016/17 figure.

**figures have been updated to reflect a change to the UK electricity generation conversion 2008 – 2012 inclusive.

***figures incorporate emissions from UK electricity transmission and distribution and for years 2008 – 2012 inclusive had included waste and recycling contractor figures.

Supporting Explanations for Dartford Borough Council Greenhouse Gas Emissions Report.

Local Authority Information.

Kent has a two tier council system and Kent County Council (KCC) covers the whole of Kent (except Medway) and Dartford is one of the 12 district councils in Kent. Dartford Borough Council office is located at Civic Centre, Home Gardens, Dartford, Kent, DA1 1DR.

Reporting Period.

This is the seventh Greenhouse Gas (GHG) Emissions report from Dartford Borough Council following the change to reporting requested by the Department of Energy and Climate Change in April 2011.

This report relates to the reporting period 1 April 2017 to 31 March 2018.

Approach used and Data Collected.

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 (DECC) (Guidance on how to measure and report your greenhouse gas emissions DEFRA September 2009).

Government requested that from the end of July 2011, local authorities start to publish energy performance data in a new format. The effect of this is that energy use data from this date will represent all greenhouse gas emissions, rather than just carbon dioxide emissions.

As requested by DECC we have used the web based tool developed by Carbon Smart, using conversion factors calculated by Ricardo – AEA. The changes in the UK electricity conversion factors and the baseline recalculation was included in the 2012/13 report.

For the purposes of this report, Dartford Borough Council has included all the emissions sources which were previously included in its National Indicator 185 return to Central Government. The necessary data for the year 2009 to 2011 had been collated using the National Indicator 185 spreadsheet. The data was inputted using that appropriate conversion factor supplied. For the period 2011/2012 a spreadsheet prepared by Maidstone Borough Council was used for collating all the data. For the periods 2012/13, 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18 a similar spreadsheet was prepared using the appropriate conversion factors from the DEFRA web based tool.

This spreadsheet lists all the different properties, vehicle registration numbers etc., and allows for the appropriate amounts (kWh or mileage) to be added against individual entries and for the conversion factors to be used within the document which automatically makes the calculations against the various scopes. The spreadsheet makes it easier to compare consumption on individual properties year on year, similarly mileage etc.

Comments can also be recorded in individual circumstances (i.e. if no consumption figures received, if data was estimated that particular year or a property is no longer in use/leased vehicle no longer used by the Council).

Data Collection: Consumption data from energy bills has been used to determine the electricity and gas consumption of the buildings the Council operates from and over which it has direct control. The electricity and gas data for this particular reporting period has been collected through electronic billing and Systemslink Software is used for processing and collecting data from bills.

This year we have obtained some information from the Low Carbon Exchange who currently monitor the Solar PV on DBC sheltered accommodation buildings.

Travel: From the Council owned vehicle fleet fuel data is provided by the Council's fuel card company. Unfortunately this year some of the figures have had to be estimated due to a lack of data where the mileage has been declared when the fuel card is presented). For business mileage undertaken by private car, mileage data is collected by travel expense claim forms submitted to the Council's payroll. Only staff car mileage data is collected as other travel is minimal. Some staff do not submit car mileage forms but this has been the case since data collection for NI 185 and Greenhouse Gas Emissions Reporting started in Dartford. Information was not supplied from the contractors providing the Waste and Recycling collection service during this reporting period. The staff mileage data for 2017/18 has been inserted into the Greenhouse Gas Emissions spreadsheet showing the number of miles travelled.

Unfortunately, despite ongoing requests, some contractors have been unable to provide the Council with the required information and work in this area is ongoing.

The funding allocated to Carbon Management work within Corporate Buildings is no longer available.

Operational Scopes.

We have measured our scope 1, 2 and significant scope 3 emissions covering the areas outlined in the Data and Approach used section above. Further details are as follows:

Scope 1:	Emissions are from combustion in owned or controlled boilers, vehicles and plant. Therefore we have included natural gas. It also includes fuel consumption from vehicles owned and operated by Dartford Borough Council and recorded mileage from the contracted waste, garden waste and recycling service
Scope 2:	Emissions are from purchased electricity for our buildings and other electricity consuming sites including car parks, CCTV cameras etc.,
Scope 3:	Emissions are from mileage travelled for business purposes in employee owned vehicles (also known as 'grey fleet').

Excluded Emissions Cover the following areas:

Domestic Buildings: energy consumed in domestic housing stock (e.g. council housing properties other than communal areas).

Commuting: to/from work has not been included.

Water consumed (supply and treatment) has not been included.

Business Mileage by any form of public transport has not been included.

Emissions from leased commercial properties have not been included.

Changes in Emissions.

The accuracy of emissions calculations depends on the quality of the data available and the conversion factor used. The data for 2017/18 shows an overall decrease in the emissions which can be attributed to the following factors:

Gas Consumption:

The gas consumption figures have been analysed and the properties showing unusual data queried. During 2017/19 Acacia Hall site continued with a change of use which has resulted in a reduction in gas consumption

Electricity Consumption:

The Council has made great strides to reduce its electricity consumption over the years having undertaken a variety of activities linked to the Local Authority Carbon Management Plan.

There are a number of sites where data has been queried and will be followed up.

During 2016/17 the electricity consumption at Acacia Hall site reduced drastically due to the change of use on site and this has been reflected in this year's reporting.

Others:

The carbon tonnage associated with staff travel mileage has remained static and the mileage for each vehicle and user is monitored year on year.

The number of vehicles that have fuel cards available to use has reduced during the year and some older vehicles have been replaced. It has not been possible to gain all the necessary data for this year's reporting so some figures have had to be estimated. Some of the vehicle mileage on vehicles issued with fuel cards is very low.

The emissions for the refuse and garden waste collection service have once again been included in the report. For the previous year the necessary data was not available for the

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Green tariffs										
Total annual emission	3580	3527	2556	2502	2570	2318	2216	2023	1792	1604
Reduction compared to previous year %	n/a	1.5%	27.5%	2.11%	-2.71%	9.8%	4.70%	9%	11%	10%
Reduction compared to base year %	n/a	1.15%	28.60%	30.1%	28.21%	35.2%	38.29%	43%	50%	57%

Breakdown of Scopes.

	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Scope 1 *										
Gas	1434	1142	1023	836	940	872	799	814	745	673
Fleet Vehicles	34	33	33	30	31	28	23	18	16	12
Emissions from outsourced activities or leased assets	n/a	n/a	n/a	n/a	432	361	361	399	308	305
Scope 2 **										
Electricity	1261	1468	782	1002	1049	944	924	703	638	537
Scope 3 ***										
Business travel/staff mileage	n/a	n/a	n/a	48	36	35	27	28	28	27
Transport emissions from fuel use	n/a	n/a	n/a	87	n/a	n/a	n/a	n/a	n/a	n/a
Emissions associated with the production of electricity	n/a	n/a	n/a	85	82	78	79	61	57	50
Emissions from outsourced activities or leased assets	n/a	n/a	n/a	501	n/a	n/a	n/a	n/a	n/a	n/a
Total gross emission	3580	3527	2556	2502	2570	2318	2216	2023	1792	1604

*2017/16, 2016/15, 2015/14, 2014/13, 2013/14 and 2012/13 figure includes fuel used from contractors waste and recycling figures. 2011/12 this had been included in Scope 3.

**figures have been updated to reflect a change to the UK electricity generation conversion 2008-2012 inclusive.

***figures incorporate emissions from UK electricity transmission and distribution and for 2008-2012 inclusive had included waste and recycling contractor figures.

Base Year.

As part of the GHG emissions reporting the Council recalculated its base year to account for changes in the Council's assets – demolishing the Multi Storey Car Park, sale of Enterprise House and the leasing of The Orchard Theatre. The figures used for the report incorporates the changes to our assets starting from the period 2008/09.

To track performance over time the base year emissions may need to be recalculated at some point to enable a meaningful comparison of current and historic emissions. The baseline emissions will be recalculated when new (additional) datasets become available, or where there is a discovery of significant or collectively significant errors or as required by updates to emissions factors.

Targets.

Following the involvement in the Carbon Trust Local Authority Carbon Management Programme in 2008/09 the Council adopted a target to reduce its carbon emissions by 35% by 2012. This was set against the original baseline for the period 1 January to 31 December 2007. This period was picked in line with the consultation guidance for National Indicator 185 – CO2 emissions from Local Authority owned operations. More details of the progress of the council's Carbon Management Plan and Year 1 and Year 2 Action Plans can be found on the Council's website.

Carbon Offsets and Green Tariffs;

The Council did not purchase any carbon offsets during this reporting period. Some of our sites have 100% of its electricity supplied from renewable generation

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