

Dartford Borough Council Greenhouse Gas Emissions Report 2019 - 2020

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 includes the reporting period 1st April 2019 to 31st March 2020. 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 in to 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 in to three groups or scoped.

Operational Scopes:

| Scope One (direct emissions) | Scope Two (energy indirect) | Scope Three (other indirect) | Not included |
|---|---|---|---|
| Fuel used to heat our buildings (eg natural gas) | Purchased electricity for our buildings and other electricity consuming sites (eg 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 and 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 |

Dartford Borough Council Greenhouse Gas Emissions Report 2019 – 2020 DRAFT

The following table uses a standard template

| | 2008/9 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 |
|---------------------------------------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Scope 1 * | 1468 | 1175 | 1056 | 866 | 1403 | 1261 | 1183 | 1231 | 1069 | 990 | 949 | 891 |
| Scope 2** | 1261 | 1468 | 782 | 1002 | 1049 | 944 | 927 | 703 | 638 | 537 | 398 | 331 |
| Scope 3 *** | 851 | 884 | 718 | 721 | 118 | 113 | 106 | 89 | 85 | 77 | 55 | 49 |
| Total gross emission | 3580 | 3527 | 2556 | 2502 | 2570 | 2318 | 2216 | 2023 | 1792 | 1604 | 1396 | 1273 |
| Carbon offset | | | | | | | | | | | | |
| Green tariffs | | | | | | | | | | | | |
| Total annual emission | 3580 | 3527 | 2556 | 2502 | 2570 | 2318 | 2216 | 2023 | 1792 | 1604 | 1396 | 1273 |
| Reduction compared to previous year % | n/a | 1.50% | 27.50% | 2.11% | -2.71% | 9.80% | 4.70% | 9% | 11% | 10.50% | 13% | 9% |
| Reduction compared to base year % | n/a | 1.15% | 28.60% | 30.10% | 28.21% | 35.20% | 38.29% | 43% | 50% | 55% | 61% | 64.50% |

Table 1: GHG emissions data for period 2008/09 to 2019/20 (lower is better)

2019/20, 2018/19, 2017/18, 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

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 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 covers the reporting period 1st April 2019 to 31st March 2020

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 public energy performance data in a new format. The effect of this is that energy use data from this date represents 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 emission sources which were previously included in its National Indicator 185 return to Central Government. The necessary data for the 2009/2011 had been collated using the National Indicator 185 spreadsheet. The data was inputted using the 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 following periods 2012/13, 2013/14, 2014/15, 2015/16, 2016/17, 2017/18, 2018/19 and 2019/20 a similar spreadsheet has been 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 (ie if no consumption figures received, if data was estimated that particular year or a property is no longer in use/leased vehicles no longer used by the Council).

Data Collection: Consumption data from energy bills have 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 from 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. For business mileage undertaken by private car, mileage data is collection by travel expense claim forms submitted to the Council's payroll. Only staff car mileage data is collected as other travel mode use 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. The staff mileage data for 2019/20 has been inserted in to the Greenhouse Gas Emissions spreadsheet showing the number of miles travelled.

In the period 2016/17 information was supplied by the contractors providing the Waste and Recycling collection service. Unfortunately despite numerous requests the information for the Waste and Recycling collection service for 2017/18, 2018/19 the data was not been forthcoming, we therefore estimated the figures by using the same figures as those supplied for the period 2016/17. For 2019/20 the data for the Waste and Recycling Collection Service has been provided. In addition, despite ongoing requests some contractors such as the Pest Control operative have not supplied the mileage data. This has been an ongoing problem since we have recorded data for reporting, so the data has never been included in the GHG reporting.

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

Operational Scopes

We have measures 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 (eg 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 emission calculations depends on the quality of the data available and the conversion factor used. The data for 2019/20 shows an overall decrease in the emissions which can be attributed to the following factors:

Gas Consumption

The gas consumption figures have been analysed . During 2017/18 the Acacia Hall site has had changes in its use, which has resulted in a reduction in gas consumption which is reflected in this years reporting. Since then the usage of the site has changed and some buildings have not been open.

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

During 2017/18 Acacia Hall site continued with a change of use and electricity use on site has reduced again and this continued in the following years.

Others:

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

The number of vehicles that have fuel cards available to use has reduced. It has not been possible to gain all the necessary data for this years 2017/18 reporting (mileage has not been declared when the fuel card is presented) so some figures have had to be estimated

The emissions for the refuse, recycling and gardens waste collection service for the period 2017/18 have not been supplied by the operative, so the figures for 2017/18 have been based on 2016/17 figures

We have delivered a renewable energy programme to install solar PV on a number of our domestic properties, including the following sheltered housing units : Mill Court, Warren Court, Lenderyou Court, Wardona Court, Thatcher Court and The Homestead.

The Council continues to use the Systemslink Software for gas and electricity billing

Dartford Borough Council Greenhouse Gas Emissions Report 2019 – 2020 DRAFT

The following table uses a standard template

| | 2008/9 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 |
|---------------------------------------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Scope 1 * | 1468 | 1175 | 1056 | 866 | 1403 | 1261 | 1183 | 1231 | 1069 | 990 | 949 | 891 |
| Scope 2** | 1261 | 1468 | 782 | 1002 | 1049 | 944 | 927 | 703 | 638 | 537 | 398 | 331 |
| Scope 3 *** | 851 | 884 | 718 | 721 | 118 | 113 | 106 | 89 | 85 | 77 | 55 | 49 |
| Total gross emission | 3580 | 3527 | 2556 | 2502 | 2570 | 2318 | 2216 | 2023 | 1792 | 1604 | 1396 | 1273 |
| Carbon offset | | | | | | | | | | | | |
| Green tariffs | | | | | | | | | | | | |
| Total annual emission | 3580 | 3527 | 2556 | 2502 | 2570 | 2318 | 2216 | 2023 | 1792 | 1604 | 1396 | 1273 |
| Reduction compared to previous year % | n/a | 1.50% | 27.50% | 2.11% | -2.71% | 9.80% | 4.70% | 9% | 11% | 10.50% | 13% | 9% |
| Reduction compared to base year % | n/a | 1.15% | 28.60% | 30.10% | 28.21% | 35.20% | 38.29% | 43% | 50% | 55% | 61% | 64.50% |

Breakdown of Scopes

| | 2008/9 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 |
|---|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Scope 1 * | | | | | | | | | | | | |
| Gas | 1434 | 1142 | 1023 | 836 | 940 | 872 | 799 | 814 | 745 | 673 | 649 | 659 |
| Fleet Vehicles | 34 | 33 | 33 | 30 | 31 | 28 | 23 | 18 | 16 | 12 | 10 | 14 |
| Emissions from outsourced activities or leased assets | n/a | n/a | n/a | n/a | 432 | 361 | 361 | 399 | 308 | 305 | 290 | 218 |
| Scope 2** | | | | | | | | | | | | |
| Electricity | 1261 | 1468 | 782 | 1002 | 1049 | 944 | 924 | 703 | 638 | 537 | 398 | 331 |
| Scope 3 *** | | | | | | | | | | | | |
| Business travel/staff mileage | n/a | n/a | n/a | 48 | 36 | 35 | 27 | 28 | 28 | 27 | 25 | 23 |
| Transport emissions from fuel use | n/a | n/a | n/a | 87 | n/a | n/a | 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 | 30 | 26 |

| | | | | | | | | | | | | |
|---|------|------|------|------|------|------|------|------|------|------|------|------|
| 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 | n/a | n/a |
| Total gross emission | 3580 | 3527 | 2556 | 2502 | 2570 | 2318 | 2216 | 2023 | 1792 | 1604 | 1396 | 1273 |

2019/20, 2018/19, 2017/18, 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

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.

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 reporting 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.

For further information please contact:

Sandra Woodfall

Environmental Promotions Officer

Email: energy@dartford.gov.uk

Phone: 01322 343056