

Bromley's CO₂ Emissions: 2019 Performance Report

CO₂ Emissions within the Scope of Influence of Local Authorities



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1. Introduction

1.1 Background

In June 2021, the Department of Business, Energy & Industrial Strategy (BEIS) released national data for 2019 Carbon Dioxide (CO₂) emissions by local authority. This data set is the successor to the former NI 186 requirement and is now referred to as: "[Carbon dioxide emissions within the scope of influence of Local Authorities](#)".

National CO₂ data has been released annually by The Department of Energy and Climate Change (DECC) since 2005 (generally 18 months after the reporting year-end). This is now done by DECC's successor, BEIS. However, the basis on which the data is compiled has changed as information capture techniques have improved. This means previous years' data has to be recast and, therefore, previous years' reports cannot be directly compared with this report.

It should be noted that the data in these reports relates to the calendar (rather than municipal) year and is expressed either as '*total*' (the borough as a whole) or '*per capita*' (average emissions per person) to provide more meaningful comparison.

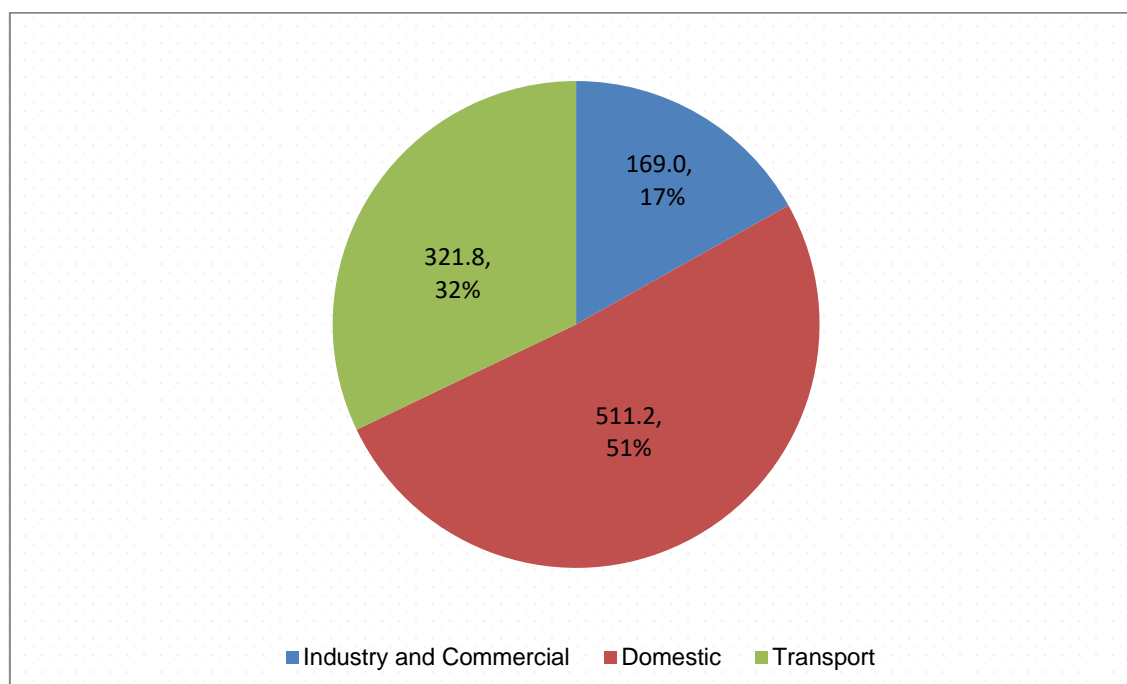
An explanation of the data sources and collection methodologies is set out in Appendix 5.1 but, in simple terms, CO₂ emissions are estimated from the following sectors:

- Industrial and Commercial (I&C): gas and electricity use in business and industry
- Domestic: gas and electricity use in residential property
- Transport: road transport (A-roads and minor roads)

1.2 Bromley Key Point Summary 2019

- In 2019, Bromley emitted a total of 1002kt CO₂ comprising:
 - 511.2kt domestic emissions (51%)
 - 321.8kt road transport emissions (32%)
 - 169kt industrial and commercial emissions (17%)
- Total all-sector CO₂ emissions decreased by:
 - 3% (26kt) from 2018 to 2019
 - While all sector emissions since 2005 decreased by 35%(529kt)
- Per capita all-sector CO₂ emissions, (which are lower than the national and London averages) decreased by:
 - 3% (0.1t per capita) from 2018 to 2019
 - And has reduced by 41.3% (2.1t per capita) since 2005
- Bromley still has higher than average per capita CO₂ emissions for the domestic sector (1.5t per capita): and remains the second worst performer in Greater London in this sector, despite a 0.1t per capita decrease on the previous reporting year.
- Industry & Commercial per capita CO₂ emissions are lower than the London average. Bromley is the fifth best performer in London, but this reflects the large population size and lack of industry.
- Transport emissions have fallen by 8% compared with the baseline (2005), but increased by 1.1% since 2018.

Figure 1: Bromley's 2019 Total CO₂ Emissions by Sector: 1002.0kt CO₂



1.3 Historic and Current Data

In 2019, Bromley experienced a decrease in total CO₂ emissions. Table 1 shows borough-wide total CO₂ emissions since 2005 broken down into sectoral sub-categories.

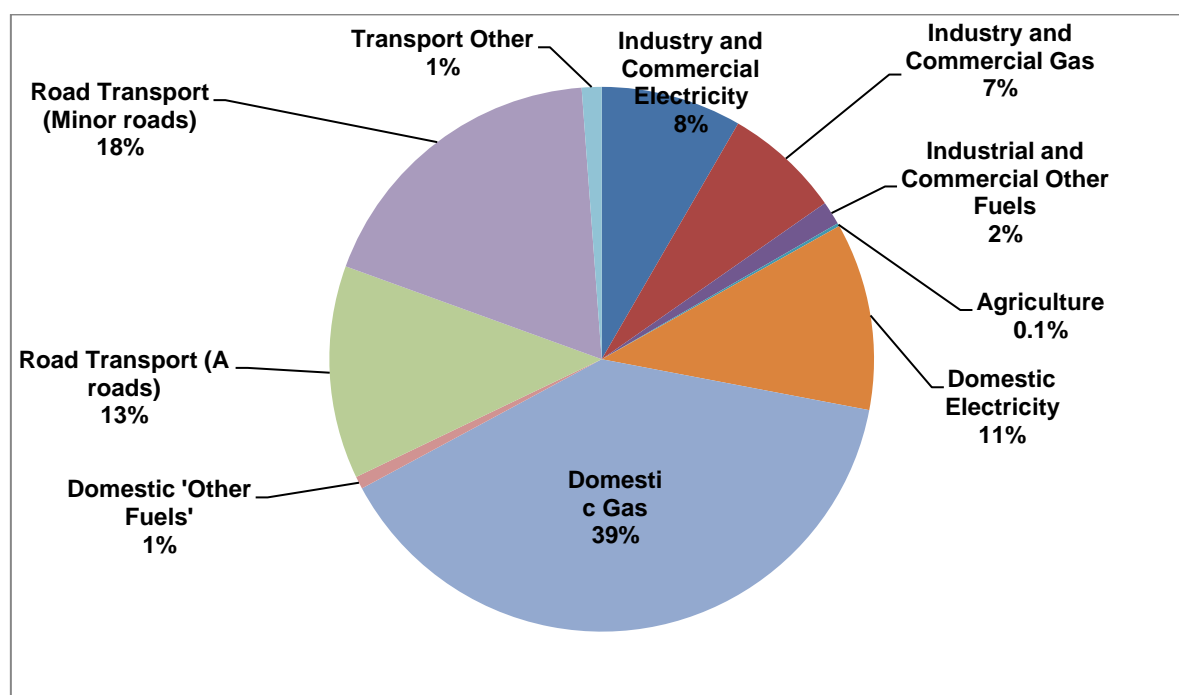
Table 1: All-Sector Emissions: 2005-2019 (ktCO₂) - colour relates to sector as per Fig. 1

Year	Industry and Commercial Electricity	Industry and Commercial Gas	Large Industrial Installations	Industrial and Commercial Other Fuels	Agriculture	Domestic Electricity	Domestic Gas	Domestic 'Other Fuels'	Road Transport (A roads)	Road Transport (Minor roads)	Transport Other	Grand Total
2005	249.1	104.3	-	19.6	1.8	320.2	478.8	9.0	190.4	147.9	9.9	1,530.9
2006	289.1	111.3	-	19.3	1.8	335.1	461.1	8.4	189.0	142.5	10.0	1,567.6
2007	261.9	89.1	-	19.3	1.6	335.7	437.1	7.9	180.5	144.7	10.1	1,487.8
2008	253.9	89.3	-	16.5	1.7	324.3	456.5	8.4	169.1	139.5	9.9	1,463.2
2009	235.2	78.8	-	12.4	1.7	292.6	418.2	7.4	162.6	134.9	9.3	1,353.1
2010	236.1	85.7	-	13.4	1.6	300.9	462.1	7.7	157.3	141.8	9.1	1,415.7
2011	221.8	70.9	-	11.5	1.7	288.4	378.1	7.2	152.6	142.8	9.4	1,284.3
2012	237.8	80.1	-	13.0	1.7	305.5	418.0	7.2	149.9	144.1	9.3	1,366.7
2013	214.8	86.2	-	10.8	1.6	279.1	433.1	7.7	147.5	146.4	9.6	1,336.8
2014	181.8	73.0	-	11.7	1.7	234.7	359.5	7.4	144.4	153.8	9.9	1,178.0
2015	152.4	77.0	-	12.9	1.7	199.8	388.3	7.6	143.2	156.5	10.3	1,149.8
2016	120.6	75.7	-	13.2	1.8	159.0	392.6	7.4	141.8	165.7	10.9	1,088.8
2017	102.8	70.5	-	13.8	1.7	138.8	376.1	7.6	137.0	167.4	11.2	1,027.1
2018	96.3	71.7	-	14.5	1.7	125.4	392.2	7.8	130.6	176.3	11.3	1,027.9
2019	83.7	69.5	-	14.0	1.8	111.5	392.2	7.5	126.8	183.2	11.8	1002.0

On a total all-sector basis, Bromley's CO₂ emissions have fallen by 35% from 1,530.9kt in 2005 to 1002kt in 2019 and decreased by 3% between 2018 and 2019.

Figure 2 shows how Bromley's 2019 emissions are broken down by sub-category. This highlights the dominance of a) domestic emissions (51% of total) and b) emissions from domestic gas use (39% of total).

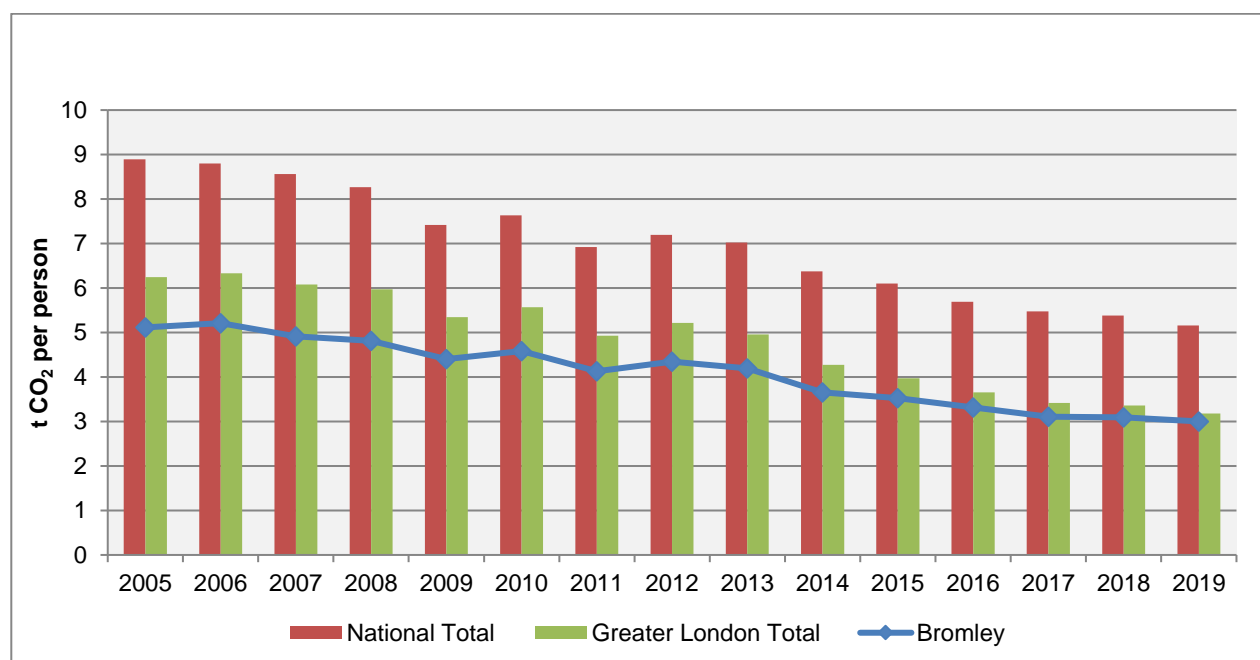
Figure 2: Total Emissions as a Percentage of Subcategory



1.4 Per Capita CO₂ Emissions

Since 2005, Bromley's (all-sector) per capita CO₂ emissions have fallen by 41.3%. Between 2018 and 2019, emissions per capita decreased by 3%. Figure 3 shows Bromley's per capita trend (blue line) compared with Greater London (green bar) and nationally (red bar) since 2005. On average, Bromley's 2019 all-sector per capita CO₂ emissions are 2.2 tonnes per capita lower than the National average and 0.2 tonnes per capita lower than the average for Greater London. In line with the national trend, per capita emissions have continually declined since 2012.

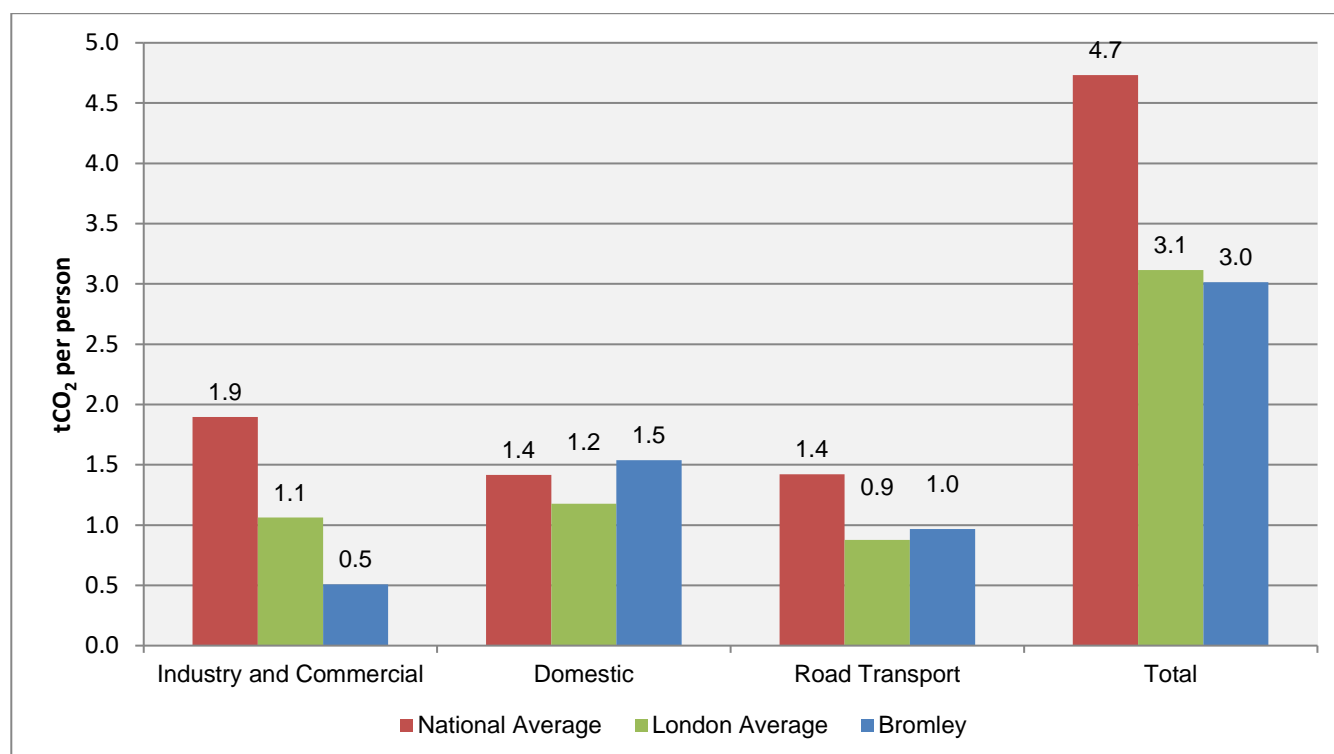
Figure 3: Per capita (all-sectors) CO₂ emissions 2005-2019



2. Sectoral per capita CO₂ Emissions

Figure 4 compares Bromley's sectoral (commercial, domestic, transport) per capita CO₂ emissions (blue) against Greater London (red) and National (green) averages. Independent figures are rounded up.

Figure 4: 2019 CO₂ Emissions by Sector



Bromley's per capita CO₂ emissions profile shows a marked variance with London and National averages.

- The lack of large-scale industrial and commercial installations has resulted in Bromley's commercial CO₂ emissions being much lower than the national average.
- Domestic CO₂ emissions, however, are higher than both the London and National average. This is largely due to the 'hard-to-treat' nature of the housing stock (e.g. solid wall pre-war construction) and the relative affluence of the population (See Table 3).
- Emissions from road transport are slightly above the London average but below the national average. This can be attributed to the large size of the borough, the relative lack of public transport network, and to the fact that Bromley has the largest road network of any London borough. Additionally, Bromley has relatively high rates of car ownership (See Table 5).

2.1 Industry and Commercial CO₂ Emissions

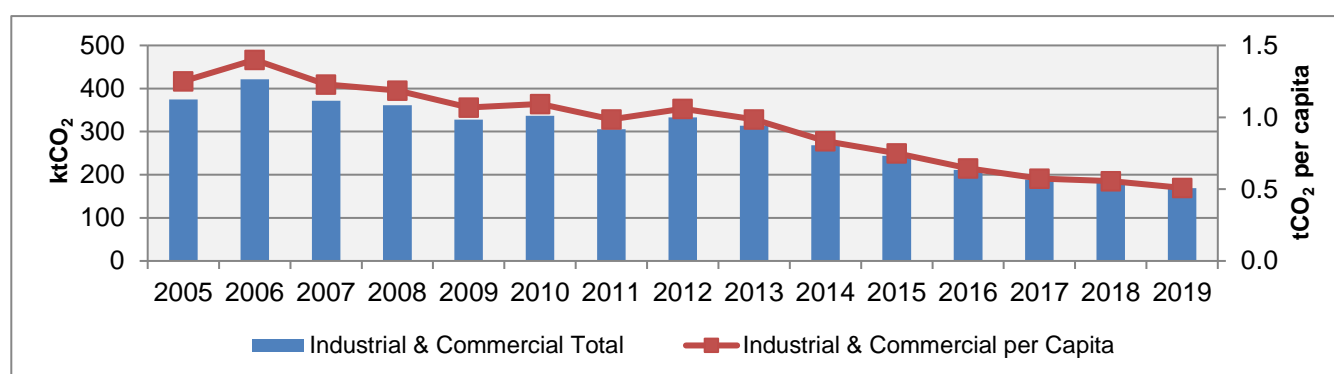
Industry and commercial CO₂ emissions are responsible for 17% of Bromley's carbon footprint, well below the Greater London and national average of 34% and 40% respectively. Table 2 sets out some factors relating to this.

Table 2: Bromley's Commercial Emissions: Factors

- Relatively few industrial installations in the borough
- Effects of slow economic growth on business energy consumption
- Energy intensive businesses being concentrated in other London boroughs

The borough has relatively low total and per capita commercial CO₂ emissions. Figure 5 shows commercial CO₂ per capita emissions plotted against total commercial emissions for 2005-2019.

Figure 5: Bromley's Industrial and Commercial CO₂ Emissions (Total and Per capita)



In 2019, total I&C emissions decreased by 55% since 2005 and 8% since 2018. Further examination of the decrease in commercial CO₂ emissions shows a 33% reduction in gas emissions since 2005 and a decrease of 3% since 2018. There was a decrease of 66% in electricity since 2005 and 13% since 2018. The commercial sector also saw a 29% decrease in emissions from "other fuels" (e.g. oil) since 2005 and a decrease of 3% since 2018.

2.2 LB Bromley's Carbon Management Programme

The Council's Carbon Management Programme (CMP) is the main initiative designed to help reduce the organisation's energy consumption and carbon emissions, and provides an opportunity for the Council to achieve significant cost savings by becoming more resource efficient. The CMP focuses on activities that the Council can directly influence, such as energy use in Council buildings, street lighting, transportation fuel use, water consumption and office waste generation, which together now contributes to less than 1% of the borough's total annual emissions.



The CMP's first phase (CMP1) ran from 2008/09 to 2012/13 and resulted in a 14% reduction (5,275 tCO₂e) in the Council's own GHG emissions. The second programme CMP2 (2013/14 to 2017/18) achieved a 33% reduction (12,000 tCO₂e) against a 2013 baseline, exceeding the 15% target.

A Council Motion on 15th July 2019 unanimously approved a ten-year plan to ensure that the council reaches net zero carbon emissions by 2029. Essentially, this means reducing emissions produced by the Council to zero in order to achieve carbon neutrality.

CMP3 (2019/20 to 2029/30), the third phase of the Council's Carbon Management Programme, has adopted 2018/19 as the baseline year against which progress will be monitored and measured over the next ten years, and zero emissions set as the new target.

2.3 Domestic CO₂ Emissions

Domestic emissions are responsible for 51% of Bromley's all-sector emissions: a much greater proportion than the figure nationally (30%) and Greater London (38%) reflecting the nature of the borough which is predominately residential with relatively little commercial activity. Since Bromley has less industrial and commercial emissions a greater proportion of "total" emissions emanate from residential property or from residents travelling to or from their homes.

The nature of housing stock, relative affluence of the population and age profile of residents all influence domestic sector emissions in Bromley. Table 3 sets out various factors for the comparatively high emissions in this sector.

Table 3: Bromley's Domestic Emissions: Factors

- Bromley has the largest elderly population of any London Borough, with 17% of the total Bromley population (2011 census). Typically, over 65's stay at home more than those of working age and may live in under-occupied private housing, requiring more energy to heat and keep warm
- According to the most recent ONS data (2018) the average Household Income Estimate for Bromley is £57,256k and affluent households generally spend more on energy
- Since the 1980s there has been a limited supply of new housing (although this has increased since 2003) meaning that the borough has relatively few energy efficient properties
- Approximately 70% of housing in Bromley is owner-occupied, which is often less energy efficient than Housing Association stock
- 50% of private rented sector dwellings were built before 1919 and a further 38% were built between 1919 and 1944, making it more energy intensive and difficult to improve
- 48% of housing is detached or semi-detached, which leads to wasted energy through solid walls, high ceilings and large windows
- Bromley is an outer London borough and typically has a slightly lower temperature than inner London, meaning comparatively more energy is used to heat homes

In 2019, total domestic CO₂ emissions have fallen by 37% since 2005 and 3% since 2018.

Per capita performance remains poor and emissions (1.5t/capita) continue to be higher than both the London average (1.2t/capita) and national average (1.4t/capita).

Figure 6: Bromley's Domestic CO₂ Emissions 2005-2019 (per capita and total)

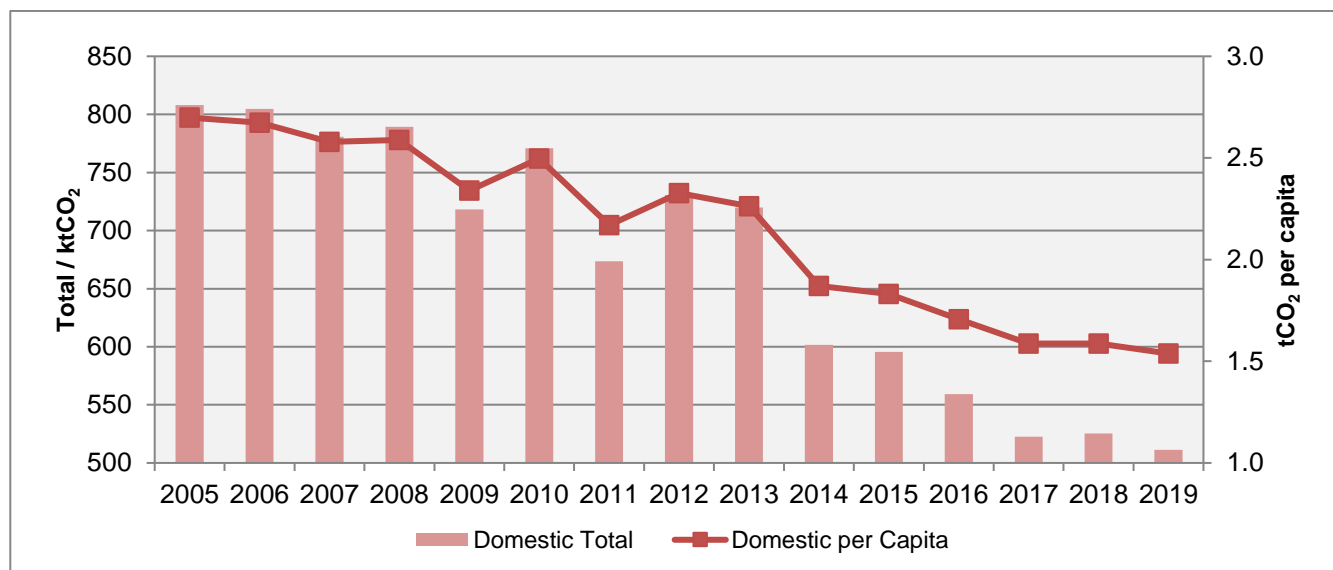
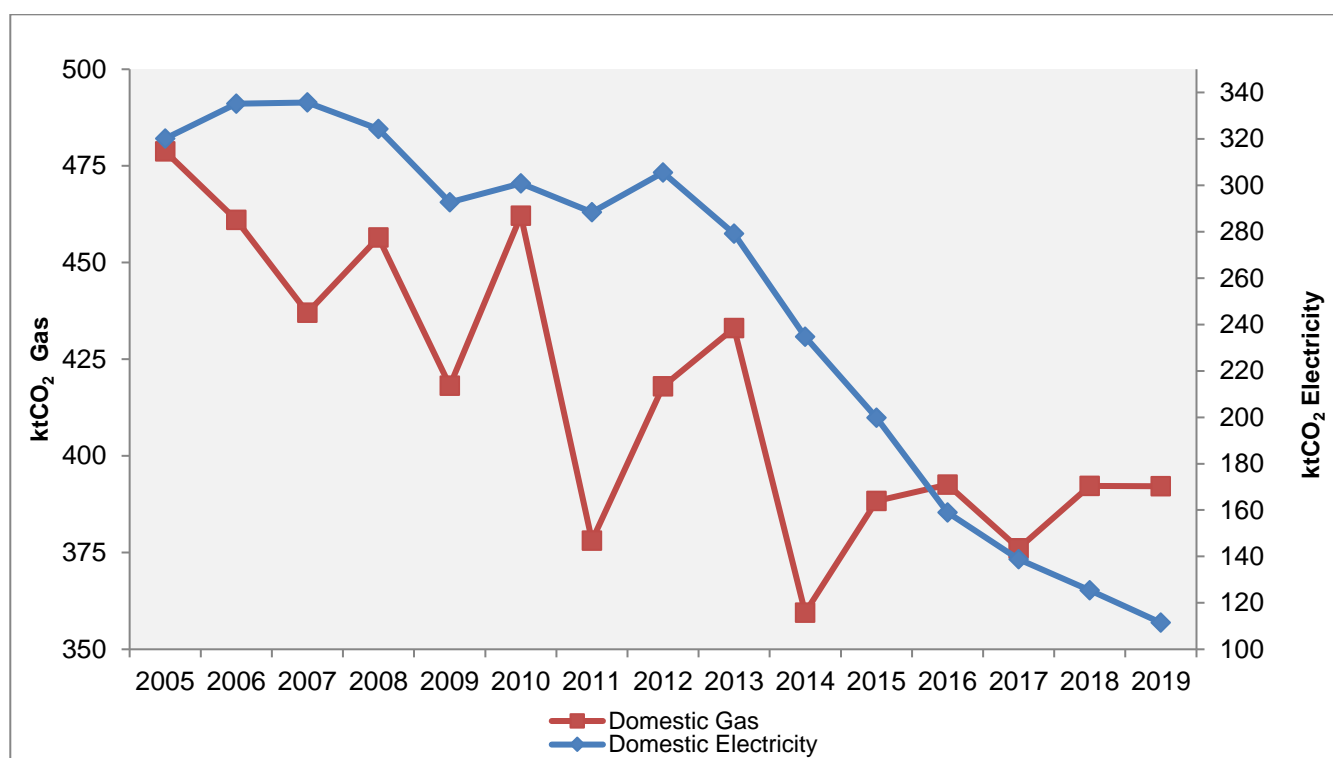


Figure 7 shows domestic electricity and gas consumption for 2005-2019. There has been a steady decline in electricity consumption since 2005, which may be attributable to better energy efficiency and behavioural change. Gas usage has also decreased, although is particularly weather dependant. There are clear spikes in years where there was a cold and long winter resulting in more energy use and higher CO₂ emissions.

Figure 7: Domestic Gas and Electricity Consumption 2005-2019



Since 2005, emissions from domestic electricity use decreased by 65% and domestic gas emissions fell by 18%. Since 2018, emissions decreased by 11% for electricity whilst there was no change for gas.

Reducing domestic emissions is difficult due to the lack of Council resources made available to this area and a lack of any specific statutory requirements for property owners to attain or meet specific standards in this respect. This has, however, changed for the private rented sector as properties are now required to reach a minimum energy efficiency standard, stipulated by an energy performance certificate (EPC). Enforcement is a responsibility of the Local Authority and sector compliance is largely dependent upon resources made available. This may change as regional schemes attempt to tackle issues of fuel poverty and climate change. Table 4 lists the initiatives underway that may help reduce domestic emissions.

Table 4: Domestic Emissions Initiatives

- Providing a residents' Helpline through the Energy Saving Trust.
- Regionally, the GLA's Energy for Londoners programme aims to make the cost of heating homes more affordable. Several schemes include Warmer Homes (£4000 available per household); Fuel Poverty Support Fund (Advice and referral scheme for fuel poor households, facilitated by Lewisham), RE:NEW (retrofit works), Fuel Poverty Partnership.
- In October 2018 the Department for Business, Energy and Industrial Strategy published its policy paper *Clean Growth Strategy*. A cornerstone to this policy is a commitment to improving the efficiency of UK homes, including £3.6 billion of investment for domestic efficiency improvements through ECO and extending current levels of funding to 2028. An offer to all households to install a smart meter to help save energy and money by the end of 2020 was also implemented.
- Other government schemes such as, Renewable Heat Premium / Incentive, Zero Carbon Homes and Energy Performance Certificates (EPC) have all been promoted. BEIS have stated in the Clean Growth Strategy that they will undertake a consultation process on how social housing can meet similar standards over this period. However, the Council does not own or manage any substantive housing stock and therefore has limited influence. For additional information read the [2019 HECA Further Report, \(PDF – 274.36 KB\)](#).
- Bromley's "Excess Winter Deaths" parameter is above regional and national averages and 'significantly worse' than the average for England. The [Winter Health Project](#) (PDF – 705 KB) was developed to address the high rates of ill health and deaths due to people living in cold homes in Bromley, and included an action plan to deliver energy efficiency and heating improvements and advice for the most vulnerable people in the borough over the February 2018 period. The government has also announced several schemes to reduce fuel poverty and mitigate health risks posed by serious weather. This includes the Affordable Warmth Obligation, a second Cold Weather Payment and the Warm Home Discount Scheme. There have also been changes to the Renewable Heat Incentive, with a further £4.5 billion to support low carbon heat technologies in homes and businesses.
- Bromley is part of the South London Energy Efficiency Partnership (SLEEP), which consists of all South London boroughs. The consortia collectively bids for regional and national funding on behalf of members to facilitate advice and referrals for the fuel poor.
- As part of the work with SLEEP, Bromley work with outreach partners [South East London Community Energy \(SELCE\)](#) who offer invaluable energy efficiency services to our residents, including but not limited to:
 - advice on how to make your home energy efficient
 - a telephone advice session (currently no home advice visits due to Covid-19 restrictions)
 - energy & water saving devices delivered to the home
 - impartial advice and help on how to pay less for your electricity or gas
 - provide support and debt advice
 - support with national and regional home improvement grants and schemes.

- referral to other sources of help

2.4 Transport Emissions

Road transport emissions are responsible for 32% of LBB's total emissions, above the national average of 30% and above the Greater London average of 28%.

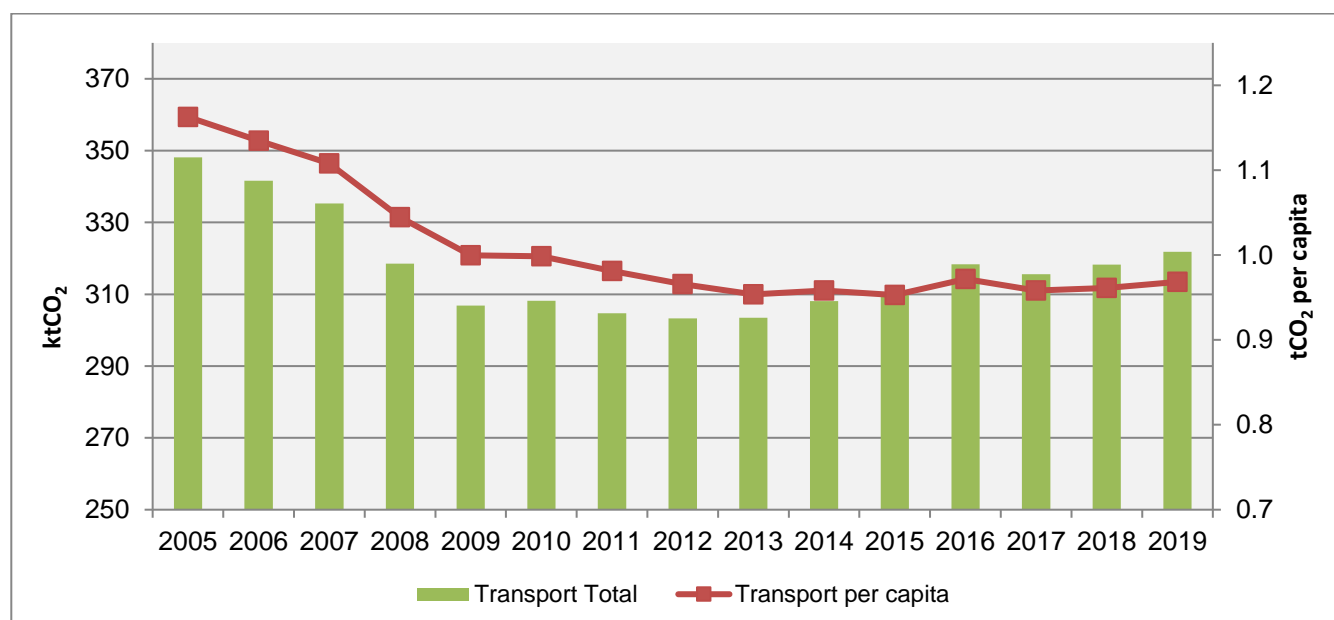
On a per capita basis, Bromley's transport emissions (1.0t) are marginally more than Greater London (0.9t) but significantly lower than the national figure of 1.4t per capita. Bromley ranks 24th of all London Boroughs for transport emissions – a decline from 18th position in 2018. Table 5 sets out the factors that contribute to Bromley's transport related emissions.

Table 5: Bromley's Transport Emissions: Factors

- Bromley has one of the least dense populations of any London Boroughs (22 people per hectare in 2019), compared to the London average of 57 people per hectare, which leads to greater car use.
- Bromley is London's largest borough in terms of area and has over 840km of road network. Resulting in Bromley residents having the longest average, and the longest total, journey length compared with other London boroughs.
- Bromley has the highest car ownership levels in London.
- Bromley lacks a secondary public transport network, with no underground or DLR service and limited access to Tramlink services.
- Apart from Bromley town centre, public transport accessibility levels are relatively low, particularly for orbital journeys.

In 2019, total Transport emissions decreased by 8% since 2005, but increased by 1.1% since 2018. Per capita emissions, 1.0 tCO₂, have also increased by 0.7% from 2018-2019.

Figure 8: Bromley Transport Emissions (Total and Per Capita)



Reducing road transport emissions in Bromley is a difficult task as it requires large-scale behavioural change (e.g. encouraging modal shift). However, Table 6 highlights initiatives underway in the transport sector.

Table 6: Bromley Transport Emissions Reduction Initiatives

- The Council encourages residents to make real choices about how they travel. Measures include:
 - School and workplace travel plans
 - Provision of cycle routes and cycle parking
 - Reducing emissions from the Council's own and its contractors' vehicle fleets
- An anti-idling campaign to offer advice and education was launched, targeting areas such as schools
- The Council is currently examining the viability of significantly increasing the presence of electric charging points in the borough, particularly while there is an abundance of central government grant funding, e.g. the On Street Residential Chargepoint Scheme (ORCS), to support local authorities with the installation of charge points in areas where there is limited off street parking
- The Council encourages residents to take advantage of the many government grant funds available to support in the installation of charge points, or subsidise the costs of an electric vehicle. These funds currently include:
 - Plug in Grant Scheme – Maximum £2500 subsidy on the cost of an electric vehicle
 - Electric Vehicle Chargepoint Scheme – Maximum £350 towards the cost of a private home charging unit
 - Workplace Charging Scheme – Scheme to subsidise the costs of between 20-40 chargepoints per organisation

3. Comparing Bromley's Emissions

Broadly in line with national (406 local authorities in England, Scotland and Wales) and London data, Bromley's total CO₂ emissions decreased by 35% (529kt) 2005–2019. Similarly to the national average, Bromley's per capita emissions decreased slightly by 3% (0.1kt) since 2018.

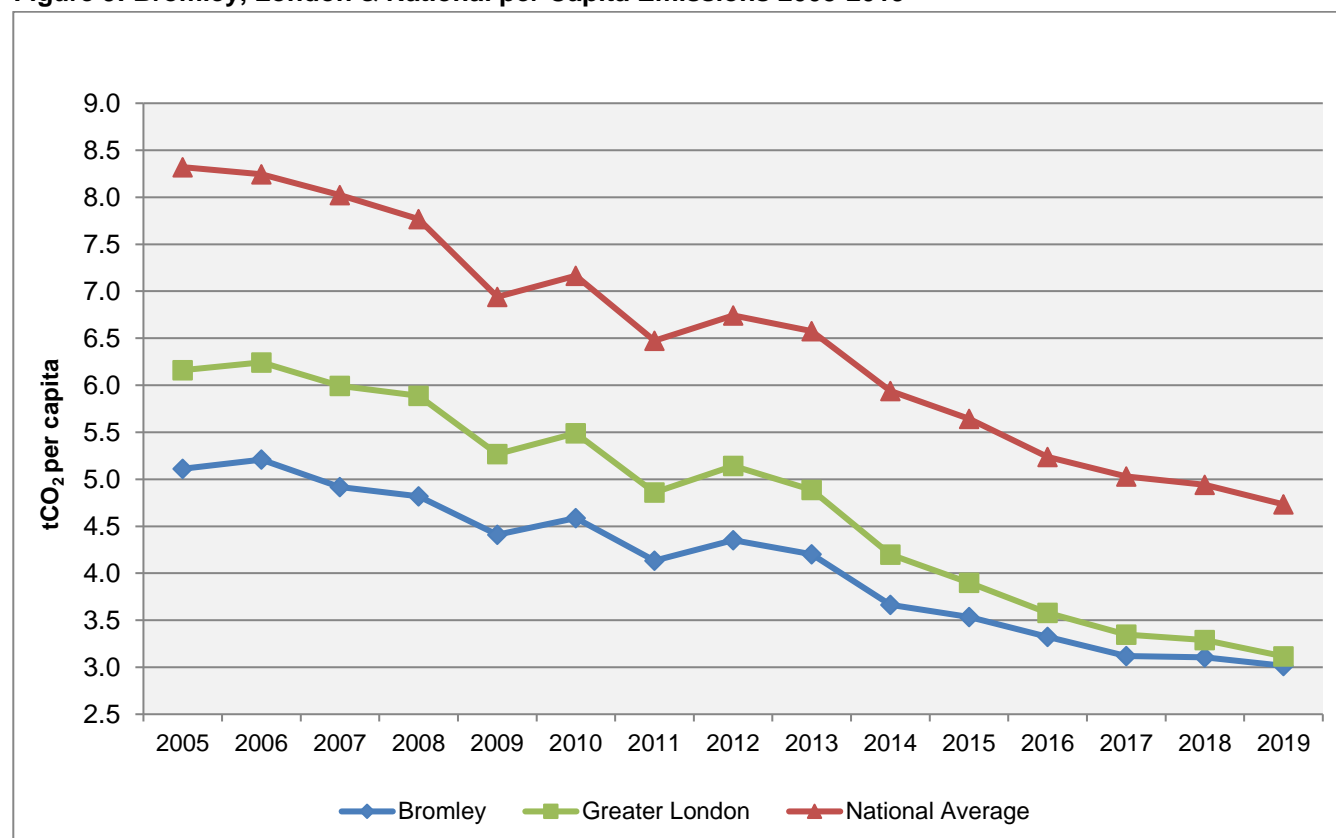
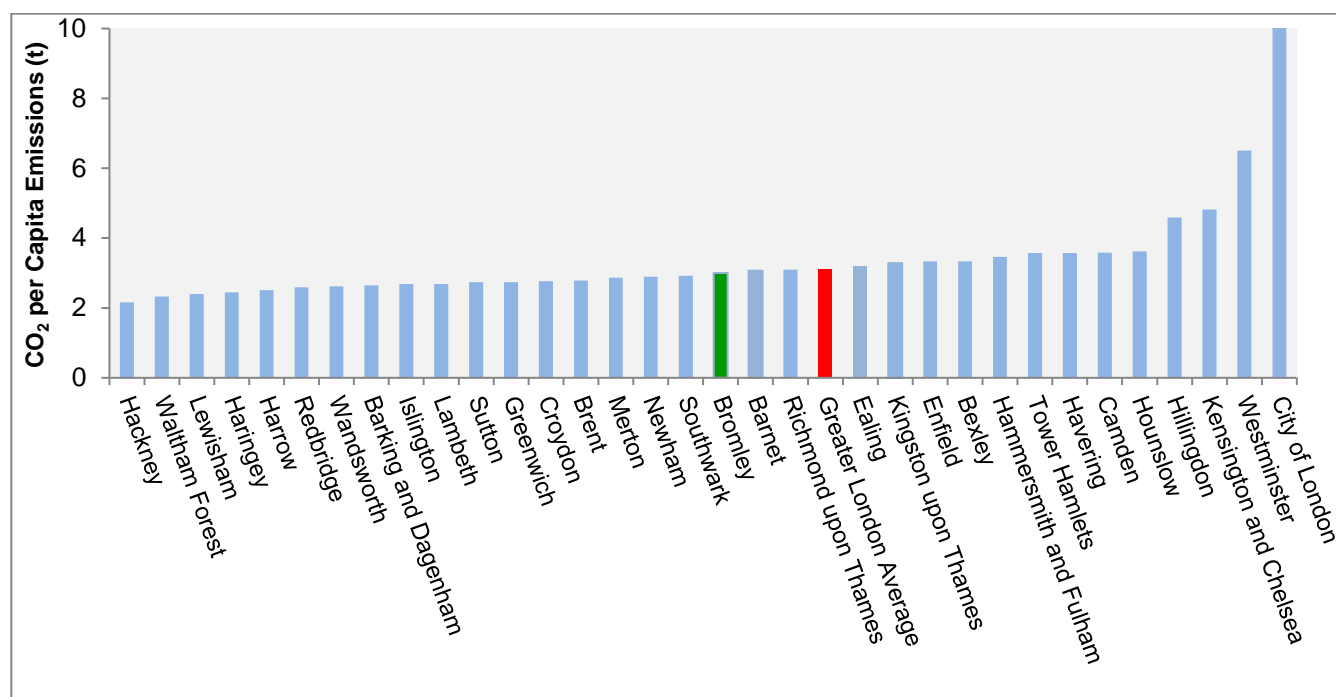
Figure 9: Bromley, London & National per Capita Emissions 2005-2019


Figure 9 shows that all-sector per capita emissions in Bromley are lower than both the Greater London and national averages. It is also evident that Bromley, Greater London and national per capita emissions follow similar annual trends, with an overall downward trajectory relative to the 2005 baseline.

Figure 10: Greater London per capita Emissions 2019



*City of London per capita emissions (65.9t) not fully illustrated in Figure 10 due to scale (y axis)

Figure 10 shows Bromley's per capita emissions compared with all the London boroughs for 2019. Hackney had the lowest emissions per capita at 2.2t per capita. The City of London had the highest per capita emissions at 65.9t per capita, due to its high commercial emissions and low population. LB Bromley (indicated in green) had the 18th lowest per capita emissions out of the 33 London boroughs in 2019 (an improvement of one place on 2018) and 0.1t per capita less than the Greater London Average (indicated in red).

Figure 11: London Borough Comparison (2019) per Capita emissions

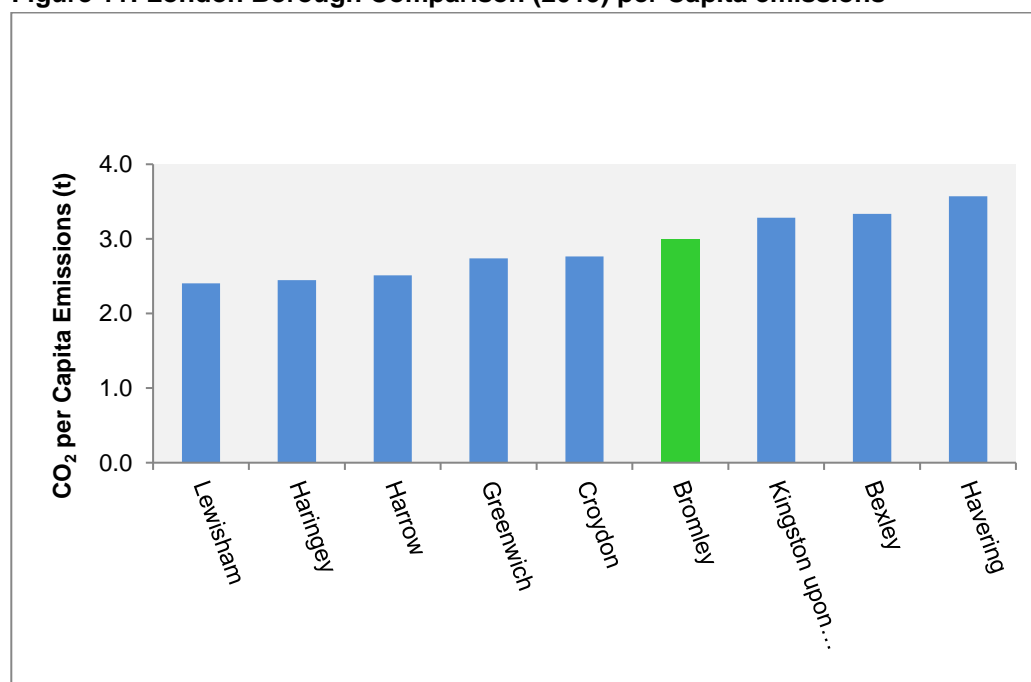
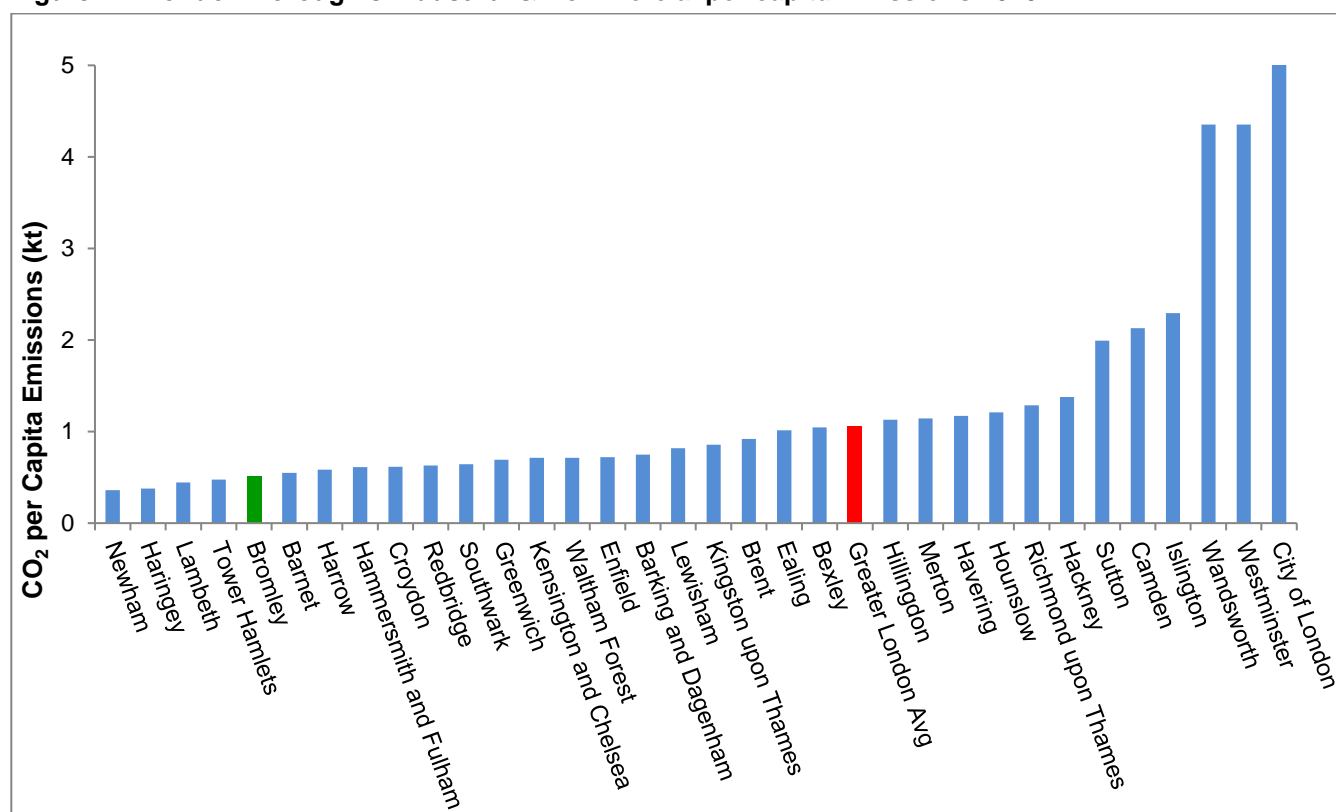


Figure 11 compares Bromley's per capita emissions (in green) with boroughs that either share similar attributes or are in close geographical proximity. Of those selected, Bromley has the 4th highest per capita emissions but is broadly in line with the other comparable boroughs.

3.1 Industry and Commercial Emissions

LB Bromley's Industry and Commercial emissions per capita were 0.5t in 2019, significantly lower than the London average of 1.1t. As evident in Figure 12, Bromley (green) has the 5th lowest commercial emissions per capita. This is attributable to the lack of large industrial installations – Bromley's commercial sector is typified by smaller service-related and retail businesses.

Figure 12: London Borough's Industrial & Commercial per capita Emissions 2019



* City of London per capita emissions (59.2.7t) not fully illustrated in Figure 12 for visualisation reasons

Table 7: Industry & Commercial Emissions Comparison

	2005 (Baseline)	2013	2014	2015	2016	2017	2018	2019	% Change since 2005 (Baseline)	% Change since 2018
Bromley	375	313	268	244	211	189	184	169	-55%	-8%
Greater London	20,240	18,248	15,318	13,732	11,857	10,762	10,506	9,515	-53%	-9%
National Total	246,101	196,933	178,047	164,127	144,048	138,073	135,098	126,701	-49%	-6%

Table 7 shows Bromley, Greater London and National recent annual total emissions compared with the 2005 baseline. Since 2005, emissions in Bromley and nationally have fallen by 55% and 49% respectively. In Greater London emissions have fallen by 53%. In terms of annual change, Bromley saw an 8% reduction in emissions in the I&C sector between 2018 and 2019, approximately the same as regional changes across Greater London.

3.2 Domestic Emissions

Bromley's domestic emissions (1.5t per capita) were above the London average of 1.2t in 2019. There was a 3% decrease in total domestic emissions in Bromley in 2019 compared with 2018.

Figure 13 shows that Bromley has the 2nd highest domestic per capita emissions of all the London boroughs.

Figure 13: London 2019 Domestic per capita Emissions

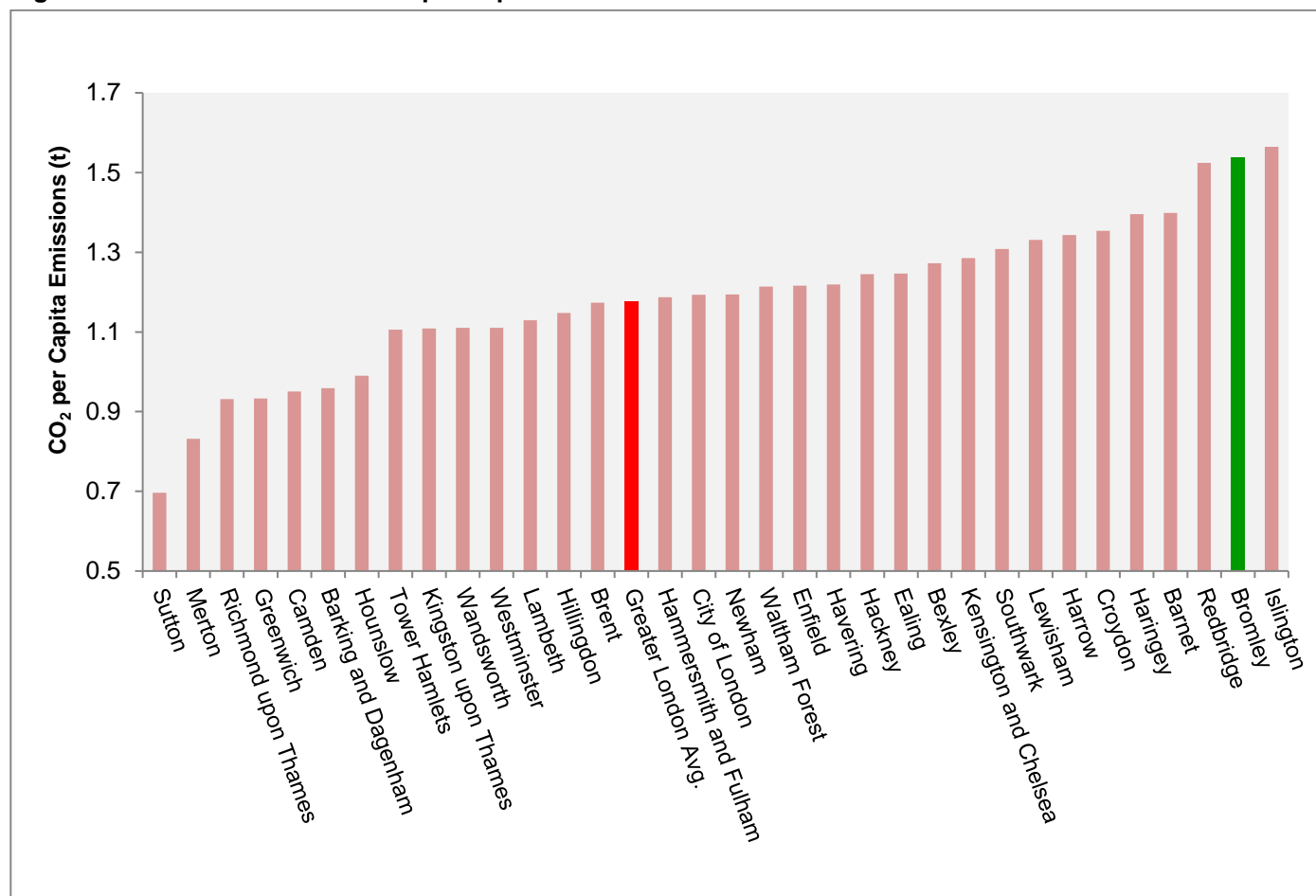


Table 8 shows Bromley, Greater London and National 2019 total domestic emissions compared with 2005 and 2019.

Table 8: Domestic Emissions Comparison

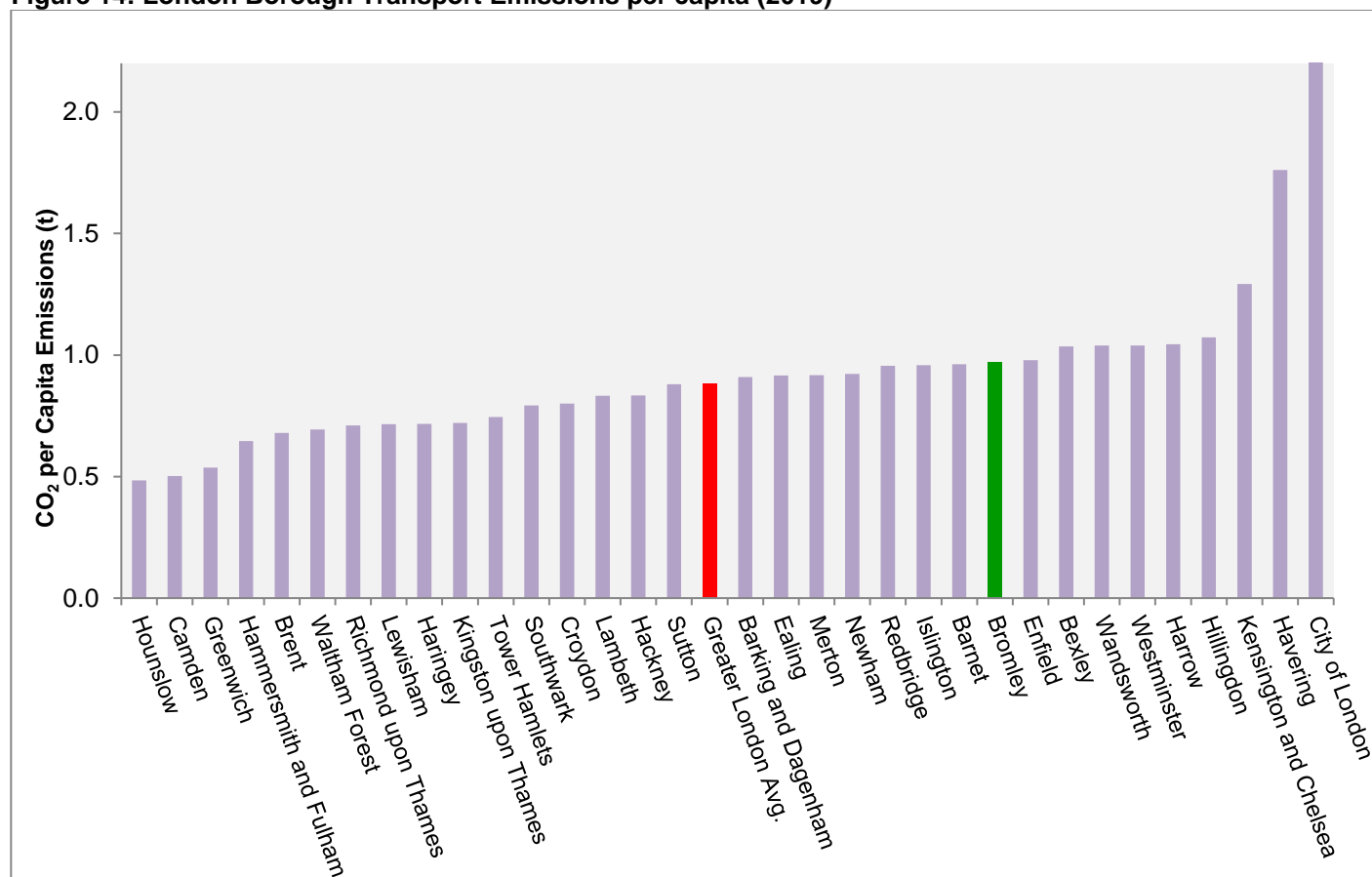
	2005 (Baseline)	2013	2014	2015	2016	2017	2018	2019	% Change since 2005 (Baseline)	% Change since 2018
Bromley	808	720	602	596	559	523	525	511	-37%	-3%
Greater London	17062	15094	12667	12292	11604	10825	10844	10537	-38%	-3%
National Total	153032	132976	112524	108732	103234	97058	97104	94532	-38%	-3%

There was a 3% decrease in Bromley's total domestic emissions in 2019 compared with 2018, in line with both Greater London and National reductions of 3% in the same period.

3.3 Bromley Transport Emissions

Car ownership rates in Bromley are high and on a per capita basis, Bromley's road transport emissions (1.0t / per capita) were slightly higher than the Greater London average in 2019 (see below).

Figure 14: London Borough Transport Emissions per capita (2019)



* City of London per capita emissions (5.5t) not fully illustrated in Figure 14 for visualisation reasons

Bromley's road transport emissions per capita (dark green) are slightly higher than the London average (0.9t/capita), this is an increase on last year where Bromley was below the London average. Bromley is also 0.4t per capita lower than the national average (1.4/capita).

Table 9: Transport Emissions Comparison

	2005 (Baseline)	2015	2016	2017	2018	2019	% Change since Baseline	% Change since 2018
Bromley	348	310	318	316	318	322	-8%	1%
Greater London	9,023	7,773	7,926	7,951	7,951	7,870	-13%	-1%
National Total	103,508	94,523	96,638	97,043	96,159	94,907	-8%	-1%

Table 9 shows Bromley, Greater London and National total transport emissions compared with the 2005 baseline. Bromley has experienced an 8% drop in transport emissions compared to 2005, which is less than Greater London (13%) and the same as the National Total (8%) in the same period. There has been an increase of 1% in transport emissions in Bromley compared with 2018, while there has been a 1% decrease in Greater London and in the National total.

3.4 All Sectors Comparison (per capita)

Table 10 shows the relative positions between Bromley and the other 32 London boroughs in ascending order (i.e. the higher the ranking – with '1' being highest – the better comparative performance).

Table 10: London Borough Comparative Rankings (1= best performer and 33=worst)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Industry & Commercial	3	8	5	3	5	4	5	5	5	5	5	5	5	5	5
Domestic	32	32	32	32	31	31	31	31	31	31	31	31	31	32	32
Road Transport	23	23	23	23	23	23	23	23	23	22	18	24	20	18	24
All sectors	13	15	15	13	17	16	17	17	18	14	18	24	24	24	26

Figure 15: Bromley rankings over time for each emissions category relative to 33 London Councils

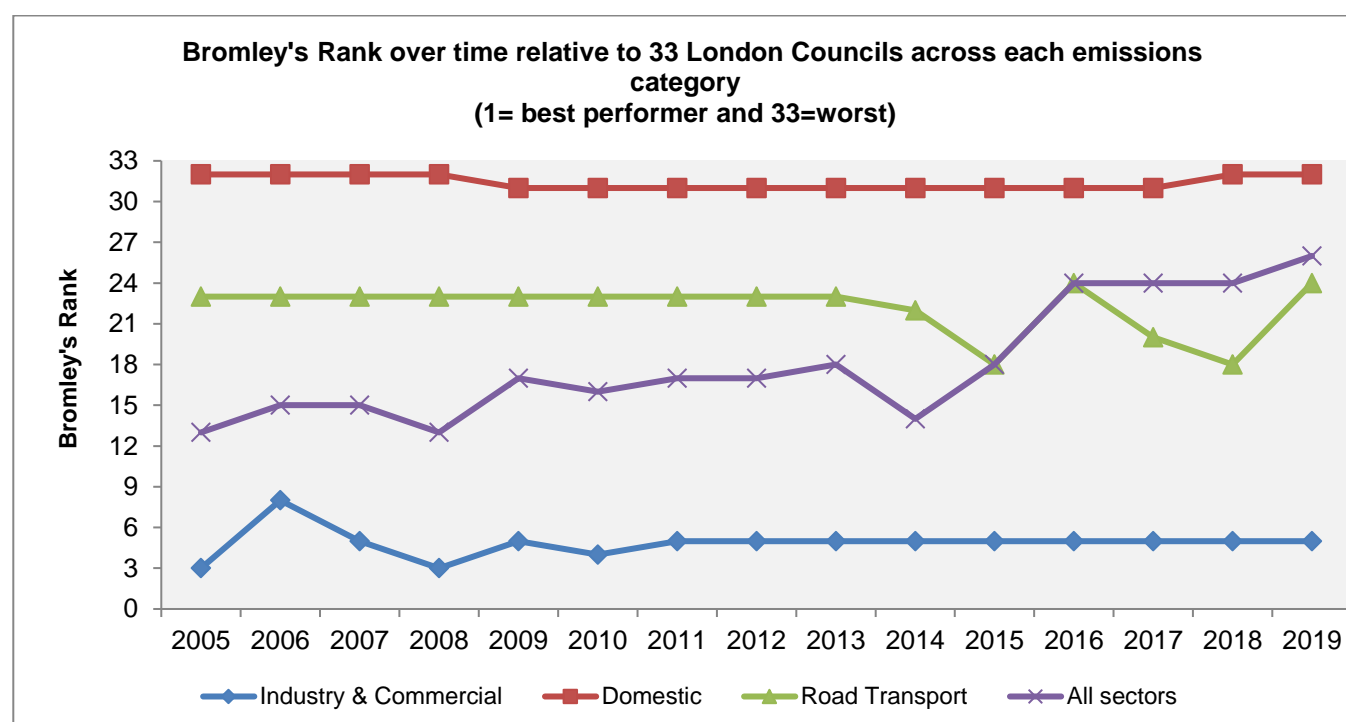


Figure 15 is a visual representation of the ranking data in table 10. Bromley has remained towards the bottom of the league table for domestic emissions (red) and close to the top of the table for industrial and commercial emissions (blue). Emissions for 2019 have increased slightly from road transport. In 2019, LB Bromley's 'All sectors' ranking is 26th, two positions higher than 2018. This reflects the increase in emissions from the road transport sector.

3.5 Comparison with Previous Years

Figure 16: Per Capita % Change – 2019 emissions compared with 2005 Baseline

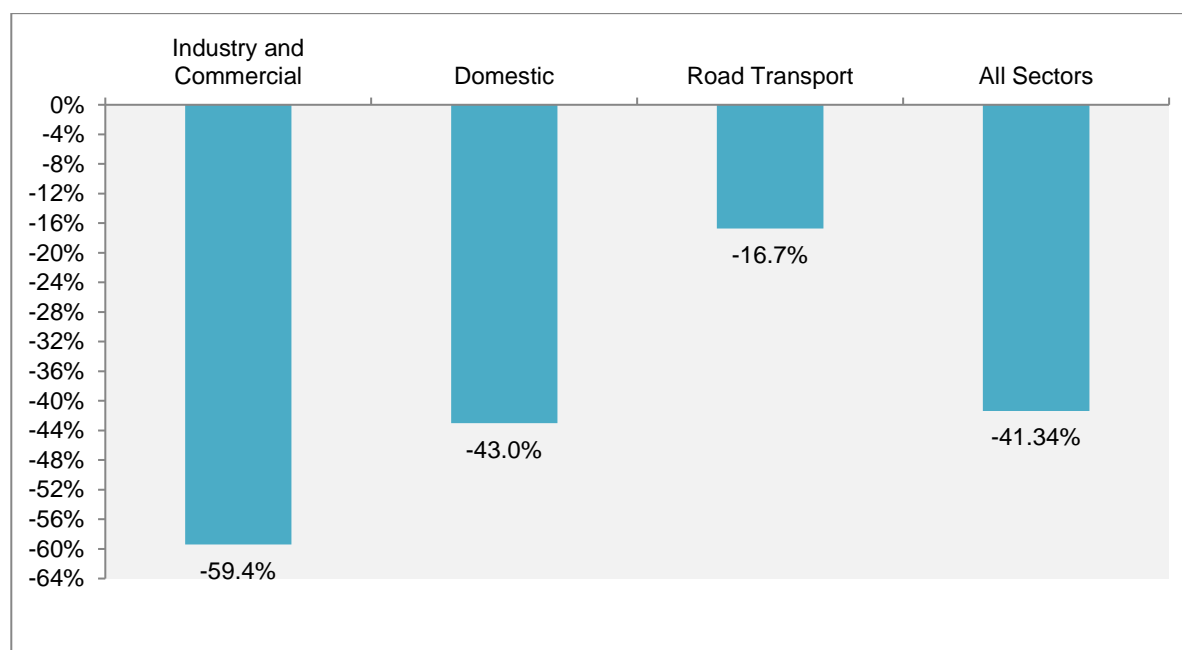


Figure 16 shows that per capita emissions since the baseline year (2005) have fallen across all sectors. The largest percentage drop has been in 'Industry and Commercial' per capita emissions, at 59.4% since the baseline year. The smallest decrease has been in the road transport sector with a fall of 16.7% since baseline.

Figure 17: Per Capita % Change - 2019 emissions compared with 2018

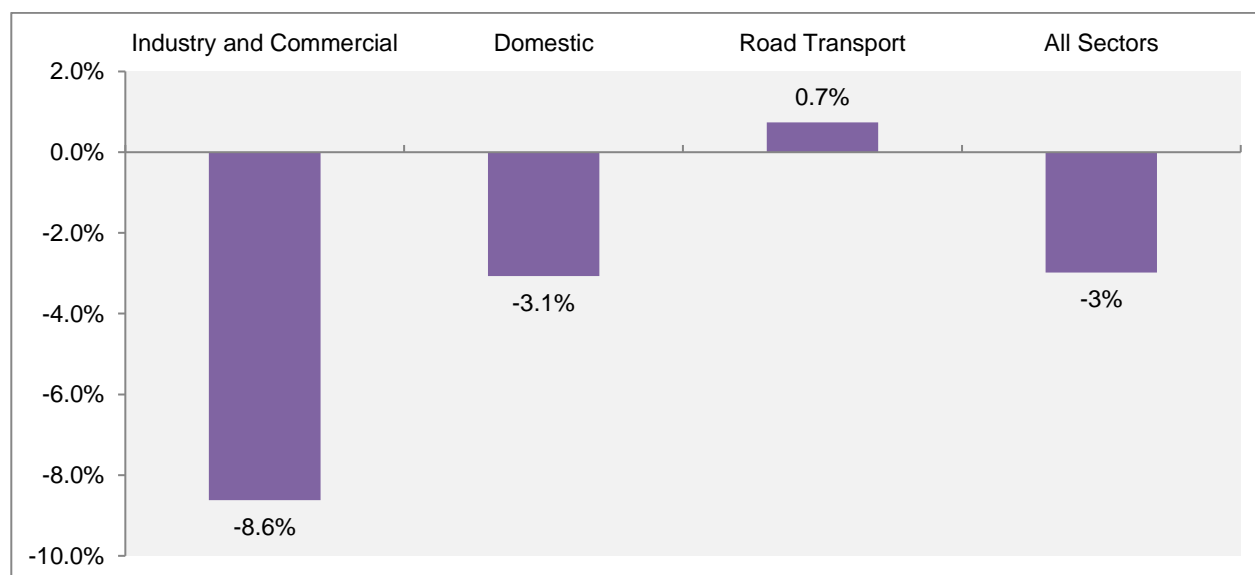


Figure 17 shows the difference in emissions between 2018 and 2019. I&C, and Domestic saw an 8.6% and a 3.1% reduction respectively. Meanwhile, road transport saw a 0.7% increase in per capita emissions. On average, all sectors saw a 3% decrease in per capita emissions.

4. Summary and Conclusions

Despite significant overall reductions since the 2005 baseline, Bromley's 2019 CO₂ emissions are less than encouraging given the small reductions in emissions from I&C and domestic sector, combined with a small increase in emissions from road transport. Broadly these changes appear to be part of an overall national trend and, therefore, cannot be attributed to any particular action undertaken by LB Bromley or Bromley residents. While the Council can influence local CO₂ emissions (e.g. through encouraging energy efficiency in the housing sector or modal shift in the transport sector to reduce emissions and costs), it has little direct control (for instance housing is outsourced to a number of different housing associations) other than over its own emissions. Indeed macro-economic trends, such as the state of the economy or whether it was a particularly cold year, are more likely to be material factors.

In 2019, Bromley emitted 1002kt CO₂: 51% of emissions were from the domestic sector; 32% came from road transport and 17% from industrial and commercial facilities. Overall, per capita emissions are significantly lower (i.e. better) than, or similar to the national and London borough average but *per capita* domestic emissions are now the second highest (i.e. worst) in London. Per capita road transport emissions are marginally higher than the London average and industrial/commercial emissions are significantly below average.

Table 11: 2019 Outcome Analysis

Positive Outcomes	Negative Outcomes
<ul style="list-style-type: none"> • Total all-sector CO₂ emissions for Bromley have reduced by 35% (529kt) since the 2005 baseline. • Bromley's total all sector emissions decreased by 3% (26kt) from 2018 to 2019. • Per capita all-sector CO₂ emissions have fallen by 41.3% since 2005. • Domestic electricity emissions have decreased by 11% since 2018, while there has been no change in gas emissions. • Per capita all sector emissions decreased by 3% (0.1t) from 2018 to 2019 	<ul style="list-style-type: none"> • Bromley has higher than average per capita CO₂ emissions for the domestic sector (1.5t) and remains the 2nd worst performer in London. • Bromley has worsened its ranking in the transport sector, with a decline from 18th place to 24th place. • Improvements are marginal and appear to be products of national trends rather than direct action from Council initiatives. • Significant resources are required if the Council is to influence and reduce domestic gas consumption levels, as well as encourage the behavioural and infrastructural change required for a modal shift in transport.

Table 12: Historical Sectoral summary and 2019 comparative data

Area/Year	Ind. & Commercial		Domestic		Transport		Total	
	total (ktCO ₂)	/ capita (tCO ₂)	total (ktCO ₂)	/ capita (tCO ₂)	total (ktCO ₂)	/ capita (tCO ₂)	total (ktCO ₂)	p/capita (tCO ₂)
LBB 2005	374.8	1.3	807.9	2.7	348.1	1.2	1,530.9	5.1
LBB 2006	421.4	1.4	804.6	2.7	341.6	1.1	1,567.6	5.2
LBB 2007	371.9	1.2	780.7	2.6	335.3	1.1	1,487.8	4.9
LBB 2008	361.4	1.2	789.2	2.6	318.6	1.0	1,469.2	4.8
LBB 2009	328.1	1.1	718.2	2.3	306.8	1.0	1,353.1	4.4
LBB 2010	336.8	1.1	770.7	2.5	308.2	1.0	1,415.7	4.6
LBB 2011	305.9	1.0	673.7	2.2	304.7	1.0	1,284.3	4.1
LBB 2012	332.7	1.1	730.7	2.3	303.3	1.0	1,366.7	4.4
LBB 2013	313.5	1.0	719.8	2.3	303.5	1.0	1,336.8	4.2
LBB 2014	268.2	0.8	601.7	1.9	308.1	1.0	1,178.0	3.7
LBB 2015	244.1	0.8	595.7	1.8	310.0	1.0	1,149.8	3.5
LBB 2016	211.3	0.6	559.1	1.7	318.4	1.0	1,088.8	3.2
LBB 2017	188.9	0.6	522.6	1.6	315.6	1.0	1,027.1	3.1
LBB 2018	184.2	0.6	525.4	1.6	318.3	1.0	1,027.9	3.1
LBB 2019	169.0	0.5	511.2	1.5	321.8	1.0	1,002.0	3.0
London 2019	9,514.6	1.1	10,537.1	1.2	7,870.4	0.9	27,922.0	3.1
National 2019	126,701.5	1.9	94,532.1	1.4	94,906.9	1.4	316,140.5	4.7

5. Appendix

5.1 Methodology summary for CO₂ reporting

Sector		Data source / method summary
A	Industrial, Commercial and Agriculture Electricity ¹	BEIS GB regional energy statistics and BEIS NI non domestic electricity statistics
B	Industrial, Commercial and Agriculture Gas	BEIS regional energy statistics. Further data for Northern Ireland from energy providers
C	Large Industrial Installations	Point source emissions for large industrial installations
D	Industrial and Commercial Other Fuels	Remaining emissions (all fuels – excluding electricity and gas and large industrial installations emissions from old sectors D to I) distributed using high resolution (1km) emissions distribution of fuel use based in employment distributions and fuel intensity by sector
E	Agricultural Combustion	High resolution (1km) emissions distribution maps developed under the NAEI programme
F	Domestic Electricity	BEIS regional energy statistics and DECC NI domestic electricity statistics
G	Domestic Gas	BEIS regional energy statistics; Further data for Northern Ireland from energy providers
H	Domestic 'Other Fuels'	High resolution emissions distribution maps developed under the NAEI programme
I	Road Transport (A roads)	Based on the NAEI data used to compile the BEIS road transport fuel estimates. Emissions from fuel combustion in the road transport sector based on detailed DfT traffic census data and NAEI emissions factors. <i>Motorway data excluded from dataset used in this report, as not under influence of local authority.</i>
J	Road Transport (Motorways)	
K	Road Transport (Minor roads)	
L	Diesel Railways	High resolution emissions distribution maps developed under the NAEI programme. <i>Diesel Railway data excluded from dataset used in this report, as not under influence of local authority</i>
M	Transport Other	High resolution emissions distribution maps developed under the NAEI programme

Source: BEIS '[2005 to 2019 UK local and regional CO₂ emissions technical report](#)' (PDF – 1752 KB)

¹ In the 2019 data provided by BEIS the industrial sector, commercial sector and public sector are now presented separately to further improve the availability of Local Authority emissions statistics. Previously, these three sectors have been grouped together as the 'Industrial and Commercial' sector. For Bromley, in the interests of uniformity with our emissions reporting on previous years, we have chosen to continue reporting emissions from the three sources, under the old 'Industrial and Commercial' sector heading. All emissions for the 2019 reporting year are still accounted for.

5.2 Relevant BEIS Statistics

You can access the UK local authority and regional carbon dioxide emissions national statistics: 2005-2019 below:

- [2005 to 2019 UK local and regional CO₂ emissions: statistical summary \(PDF - 373 KB\)](#)
- [2005 to 2019 UK local and regional CO₂ emissions: statistical release \(PDF – 1474 KB\)](#)
- [2005 to 2019 UK local and regional CO₂ emissions – data tables \(Excel – 6498 KB\)](#)
- [2005 to 2019 UK local and regional CO₂ emissions technical report \(PDF – 1752 KB\)](#)
- [Employment based energy consumption in the UK \(PDF – 607 KB\)](#)
- [Mapping carbon emissions and removals for land use, land use change and forestry sector \(PDF – 4360 KB\)](#)

5.3 Bromley Council Strategy and Plans influencing GHG emissions

Sector	Council Report	Description
All sectors	Carbon Management Programme Report	Reports annual progress of the Council's second five-year Carbon Management Programme (CMP2) in aiming to reduce energy consumption and carbon emissions as an organisation
	Air Quality Action Plan (PDF - 9.32 MB)	Reports on Bromley's air quality and proposes action plan to reduce pollution and emissions in the borough
	Environment Portfolio Plan 2021/22 (PDF – 366.88 KB)	Bromley has outlined its 2029 net zero organisational emissions target, one of the most ambitious in London.
Transport	Local Implementation Plan (LIP) (PDF – 5.43 KB)	Sets out how Bromley intends to implement the Mayor's Transport Strategy, including aims of 'reducing transport's contribution to climate change' and 'reducing CO ₂ emissions' (approved in 2019)
	Environment Portfolio Plan 2021/22 (PDF 366.88KB)	Outcome 5 includes the aim 'To reduce congestion and carbon emissions by promoting cycling, walking and public transport journeys'
	Bromley Cycling Strategy (March 2015) (PDF – 551 KB)	Three-year delivery plan aiming to improve cycling facilities, promotion, and training to increase cycling locally and reduce Bromley's road transport emissions.
Industry & Commercial	Transforming Bromley (PDF - 12,059 KB)	Sets out vision of 'Vibrant, Thriving Town Centres' whilst striving towards a 'Quality Environment', with residents 'living in a more sustainable way'.
Domestic	Home Energy Conservation Act 1995 Progress Report 2019 (PDF – 274.36 KB)	Biennial report on action taken and proposals to improve domestic energy efficiency in the borough
	Bromley Local Plan 2019 (PDF – 8.11 MB)	Vision and objectives for the Borough in 2030 and the strategic and more detailed policies relating to planning in the Borough
	Bromley's Joint Strategic Needs Strategy 2016 (PDF – 6.44 MB)	To include analysis on Excess Winter Deaths in Bromley and Council strategy relating to this

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