



carbon smart

# BDO LLP Carbon Footprint 2017/18



# BDO LLP's total emissions increased by just 0.2% in 2017/18 despite a 7.8% increase in headcount

## About BDO

BDO LLP is a leading provider of tax, audit and assurance, advisory and business outsourcing services to companies across all sectors of the economy.

We take our environmental responsibilities seriously and have been managing and reporting on our performance since 2011/12.

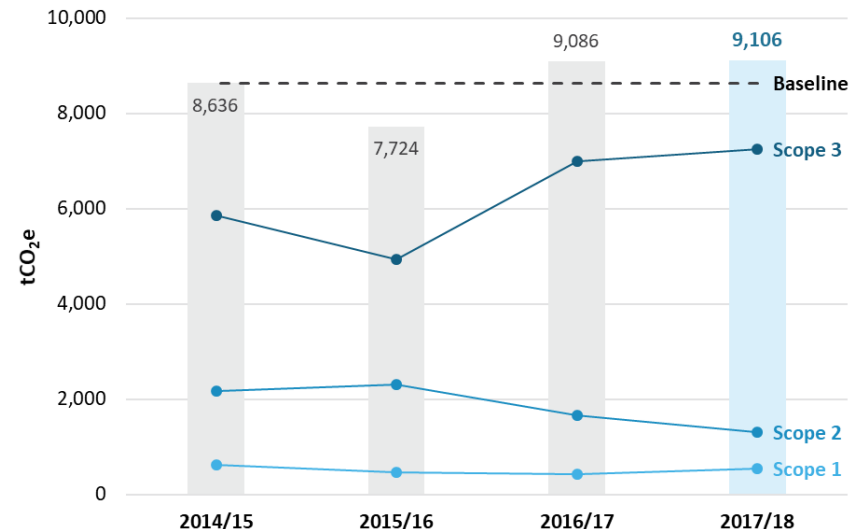
## Highlights

- Last year, our emissions increased by just 0.2% despite a 7.8% increase in average headcount throughout the year
- Consequently, although absolute emissions increased slightly, our emissions intensity per FTE fell by 7%
- This is primarily attributable to a 19% reduction in the carbon intensity of UK electricity, where average emissions per kWh fell by 19% in 2018
- For the last two years, BDO has been managing and reporting on environmental performance on a quarterly basis. This has contributed towards a significant improvement in data quality and coverage across all emission sources
- In 2017/18, our natural gas consumption is based on a higher proportion of actual data, which has resulted in comparatively higher emissions versus previous reporting years.
- Emissions for waste have also increased, with a greater proportion of emissions based on actual data from waste transfer notes

## Our 2017/18 performance:

**9,106** tCO<sub>2</sub>e      + 0.2%      + 5.4%  
 Total emissions      vs. last year      vs. baseline

Total emissions since baseline (tCO<sub>2</sub>e)



## Emissions intensity

	2014/15	2015/16	2016/17	2017/18
FTE	3,929	3,796	3,914	4,218 ↑
tCO <sub>2</sub> e per FTE	2.20	2.03	2.32	2.16 ↓

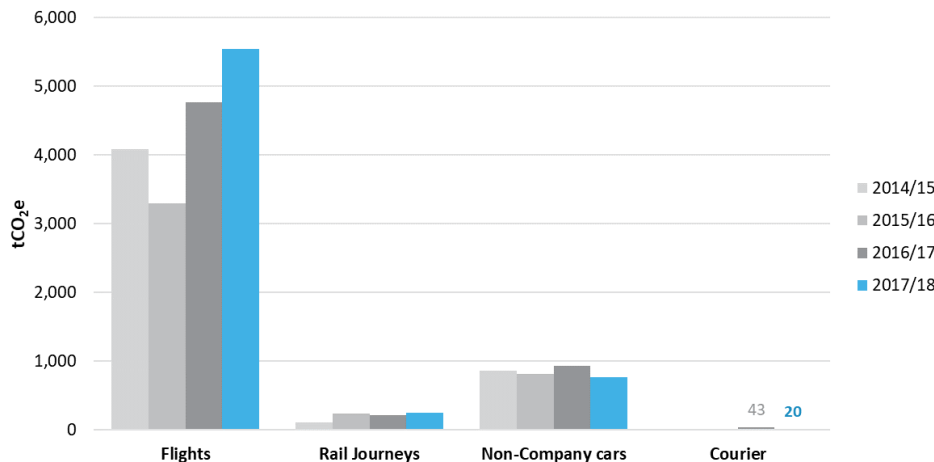


# Business travel emissions increased by 10%, linked to the 7.8% increase in headcount and a 16% increase in flights emissions.

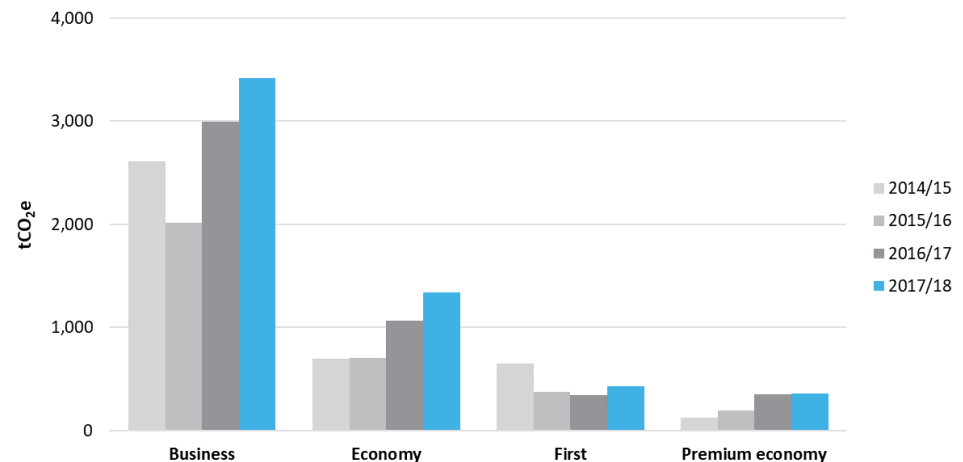
## Highlights

- Business travel accounts for the majority of our emissions (73%), with flights remaining the single largest emissions source at 61% of total emissions.
- Following an increase of 16% in 2017/18, flights now account for 84% of business travel emissions, with longer distance business class flights accounting for the majority of both distance travelled and emissions from flights.
- The increase in reported emissions from car journeys reduced by 18% to 785 tCO<sub>2</sub>e (down from 962 tCO<sub>2</sub>e in 2016/17)
  - This is partly attributable to car journey emissions being overreported by approx. ~100tCO<sub>2</sub>e in 2016/17 (equivalent to 1.13% of emissions)
- Emissions from rail journey increased to 252 tCO<sub>2</sub>e (up from 214 tCO<sub>2</sub>e in 2016/17) whilst courier emissions, reported for the first time in 2016/17 fell by 23 tCO<sub>2</sub>e

### Scope 3 travel emissions since baseline (tCO<sub>2</sub>e)



### Flights emissions by flight class (tCO<sub>2</sub>e)



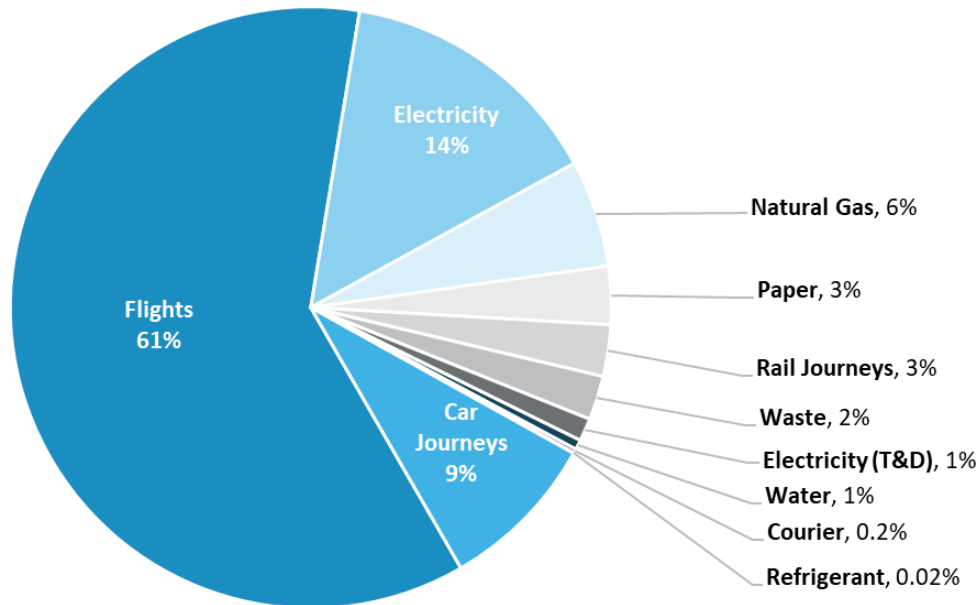


# Business travel emissions increased by 10% whilst buildings emissions fell 19% following a reduction in electricity consumption and UK grid emissions intensity

## Highlights:

- In 2017/18, our headcount increased by 7.8% contributing towards an increase in travel for business purposes, which now accounts for 73% of our overall footprint.
- Flights emissions rose considerably following a modest rise in the number of flights and significant greater distance flown.
- Electricity emissions were substantially reduced following improved data quality and coverage, reduced consumption and the continued decarbonisation of the UK grid, which led to a 19% reduction in the conversion factor for electricity.

## 2017/18 Emissions Breakdown by Source



		2017/18	Variance	2016/17	2015/16	2014/15
	Flights	5,549	↑ 16%	4,768	3,292	4,082
	Electricity	1,426	↓ 22%	1,825	2,507	2,346
	Car Journeys	785	↓ 18%	962	840	888
	Natural Gas	524	↑ 36%	386	387	399
	Paper	284	↓ 55%	638	199	413
	Rail Journeys	252	↑ 18%	214	244	111
	Waste	216	↑ 12%	192	151	152
	Water	48	↓ 2%	49	46	50
	Courier	20	↓ 53%	43	-	-
	Refrigerant	2	↓ 79%	10	59	196

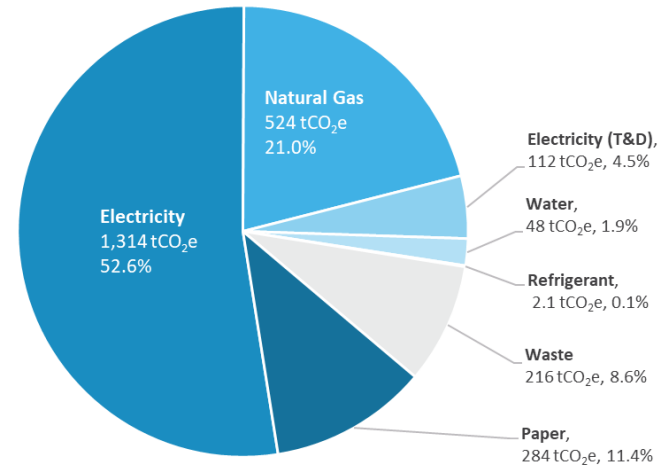


# Scope 3 Buildings

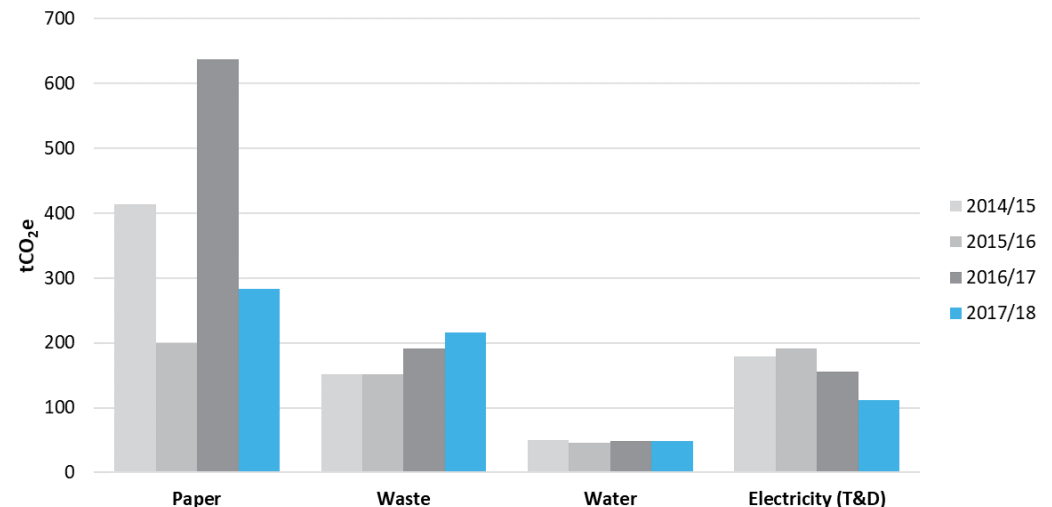
## Highlights

- Total buildings emissions fell to 2,500 tCO<sub>2</sub>e (down from 3,100 tCO<sub>2</sub>e) driven by a significant reductions in electricity emissions.
- We continue to our efforts to move to more efficient buildings wherever possible and eight offices now hold a BREEAM rating.
- Since 2014/15, we have consolidated our UK offices which has enabled the accommodation of broadly the same headcount with a 4% reduction in floor area.
- Aside from electricity and natural gas, other sources of building emissions include paper, waste and water consumption, and emissions for line losses associated with the transmissions and distribution of electricity.
- Whilst other buildings emissions sources remain relatively stable, paper emissions can be volatile year-on-year, as paper can be used outside the reporting year of purchase.
- Waste emissions have increased over the last two years, following the availability of additional data regarding the disposal of confidential waste.
- The fall in electricity transmission and distribution emissions is linked to the ongoing decarbonization of the UK grid.

## 2017/18 Breakdown of buildings emissions by source (tCO<sub>2</sub>e)



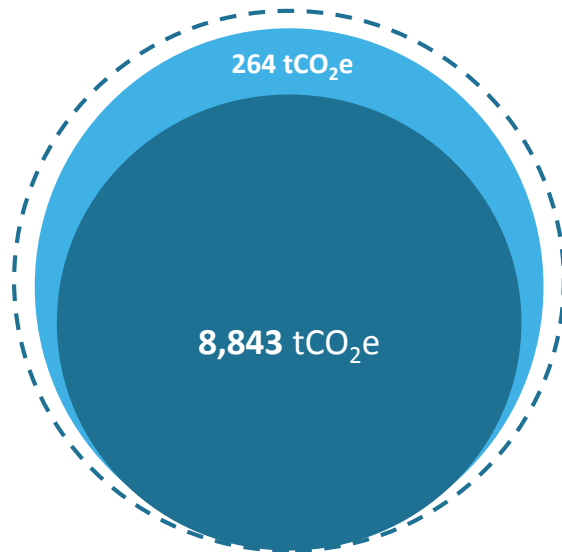
## Scope 3 building emissions since baseline (tCO<sub>2</sub>e)





# 97% of reported emissions are complete, accurate and based on actual data, with additional emissions sources included to further increase coverage

## Total reported and unknown emissions



97% Reported emissions based on actual data

3% Reported emissions based on proxy data, estimation, extrapolation or benchmarking

? Unreported emissions of unknown scale

### Reported emissions based on actual data

- Since 2016/17, BDO LLP has been managing and reporting emissions performance on a quarterly basis to improve the quality, coverage and accuracy of our disclosure.
- This has resulted in a reduction of estimations being required to determine buildings emissions and the ability to link all emissions sources to individual offices.
- Approximately **97%** of 2017/18 emissions were calculated based on actual data, including meter readings, utility statements, procurement data (flights, paper and rail travel) and detailed mileage claims for company and non-company cars.
- The inclusion of courier data, waste transfer notes for confidential waste data and taxi data across all offices further contributed to the reported emissions based on actual data.
- Overall, the data provided for 2017/18 represented a further improvement in the quality and accuracy in comparison to the previous year, with an additional 4% reported emissions based on actual data.
- This is primarily attributable to the availability of natural gas for Baker Street which previously had to be estimated.
- All offices under BDO's control have been included in the 2017/18 report.

### Reported emissions based on estimates, proxy data, extrapolation or benchmarking

- At 264 tCO<sub>2</sub>e the emissions based on estimations, proxy data and extrapolated data is BDO's lowest ever total reported emissions based on non-actual data.
- Further improvements can be made in 2017/18, notably around waste and water data.

### Unreported emissions of unknown scale

The proportion of unreported emissions is reducing, However, there are still some emission areas that may be under reported. For example:

**General waste** – these emissions are still partially estimated using historic data, which included a combination of bin volumes and approximate bags / collections per week. Offices should focus on improving waste data quality and coverage for 2018/19.



# GHG emissions by scope

In line with recognised industry best practice and WRI guidelines, BDO LLP reports two emissions totals – Location-based and market-based. Location-based emissions are calculated using the UK grid average emissions factor for electricity. Market-based emissions are calculated using a combination of our suppliers standard fuel mix or the European Residual Mixes for 2017 where supplier and tariff information was unavailable.

		2017/18		2016/17		2015/16		2014/15
		Location	Market	Location	Market	Location	Market	Location only
<b>Scope 1</b>	Natural gas	524		386		387		399
	Company cars	13		25		21		28
	Refrigerants	2		10		59		196
<b>Total Scope 1</b>		<b>539</b>		<b>421</b>		<b>467</b>		<b>623</b>
<b>Scope 2</b>	Purchased electricity	1314	1,666	1,669	2,468	2,316	2,264	2,167
	<b>Total Scope 2</b>	<b>1314</b>	<b>1,666</b>	<b>1,669</b>	<b>2,468</b>	<b>2,316</b>	<b>2,264</b>	<b>2,167</b>
<b>Scope 3</b>	Business travel	6,594		5,962		4,354		5,053
	Paper	284		638		199		413
	Waste	216		192		151		152
	Water	48		49		46		50
	Electricity transmission & distribution	112		156		191		179
	<b>Total Scope 3</b>	<b>7,253</b>		<b>6,996</b>		<b>4,941</b>		<b>5,846</b>
<b>Total tonnes CO<sub>2</sub>e</b>		<b>9,106</b>	<b>9,458</b>	<b>9,086</b>	<b>9,885</b>	<b>7,724</b>	<b>7,672</b>	<b>8,636</b>

## Emissions intensities

Headcount	4,218		3,914		3,796		3,929
Emissions per FTE (tCO <sub>2</sub> e/FTE)	2.2	2.3	2.3	2.5	2.0	2	2.2
Office space (m <sup>2</sup> )	42,464		40,555		42,513		44,391
Emissions per m <sup>2</sup> (kgCO <sub>2</sub> e/m <sup>2</sup> )	214	225	224	244	182	180	195



# Carbon Smart opinion statement

**Based on the approach taken, we believe the emissions stated are representative of BDO's business impacts and in line with the WRI GHG Protocol principles**

When assessed against each of the (WRI) Greenhouse Gas Protocol principles and within the levels of verification sought, we conclude the following:

- **Relevance** – The CO<sub>2</sub>e emissions reported reflect the GHG emissions of the company and the organisational boundary selected is representative. We believe the reporting of GHG emissions will serve the decision-making needs of any internal and external users. The boundary and approach selected is similar to peers in the industry, as is the level of estimation and exclusions based on the materiality and practicability of collecting data.
- **Completeness** – We believe that all relevant information is presented and where there are exclusions they have been disclosed and justified as per the Reporting Protocol.
- **Consistency** – The methodology used to calculate GHG emissions was consistent with 2016/17 which makes both years comparable. There might have been minor inconsistencies due to differences in data quality.
- **Transparency** – Once data was received from the office/designated contact there is a clear audit trail and any relevant assumptions have been documented. Appropriate references have been made to the accounting and calculation methodologies and data sources used.
- **Accuracy** – Data and information supporting the GHG assertion were calculated based on measured, as well as estimated, and extrapolated data. We have reduced uncertainties as far as practicable within the limits of the quality and completeness of the data provided. However, a number of estimations were made by extrapolating from actual data or estimating using proxy or benchmark data where actual data was unavailable. This accounts for 3% of all emissions.





# BDO LLP Reporting summary and approach

## Summary

Our reporting year runs from 1<sup>st</sup> July to 30<sup>th</sup> June.

BDO LLP has adopted an operational control approach to defining our organisational boundary. In 2017/18, our location-based greenhouse gas emissions from business activities amounted to:

- **539 tCO<sub>2</sub>e** resulting from the combustion of fuel and the operation of any facilities (Scope 1)
- **1,314 tCO<sub>2</sub>e** from the purchase of electricity by the company for its own use (Scope 2).

During 2016/17 we transitioned our Reading office from Kings Wharf to Thames Tower thereby increasing our reporting boundary. It has not been possible to gather data on energy use at our new Thames Tower office for the full period and Q4 2017/18 was therefore estimated based on the previous quarter.

**The GHG accounting and reporting followed the principles of relevance, completeness, consistency, accuracy and transparency.** We applied these principles when collecting, reviewing and performing the GHG emission calculations – as part of defining organisational and operational boundaries, verifying the integrity of data, checking the data audit trail and finally performing the calculations.

The data was collected, verified and calculated in accordance with the requirements of the following standards:

- World Resources Institute (WRI) Greenhouse Gas (GHG) Protocol (revised version)
- Defra's Environmental Reporting Guidelines: Including mandatory greenhouse gas emissions reporting guidance, October 2013

**UK office emissions have been calculated using the Defra 2018 issue of the conversion factor repository.**



## **Appendices**

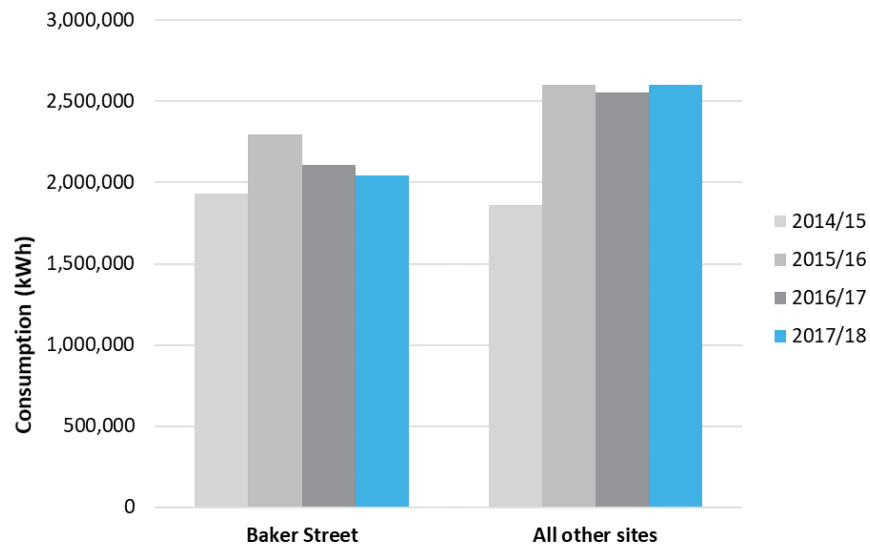


# The following slides illustrate quarterly and annual breakdown of electricity and gas performance across BDO's portfolio

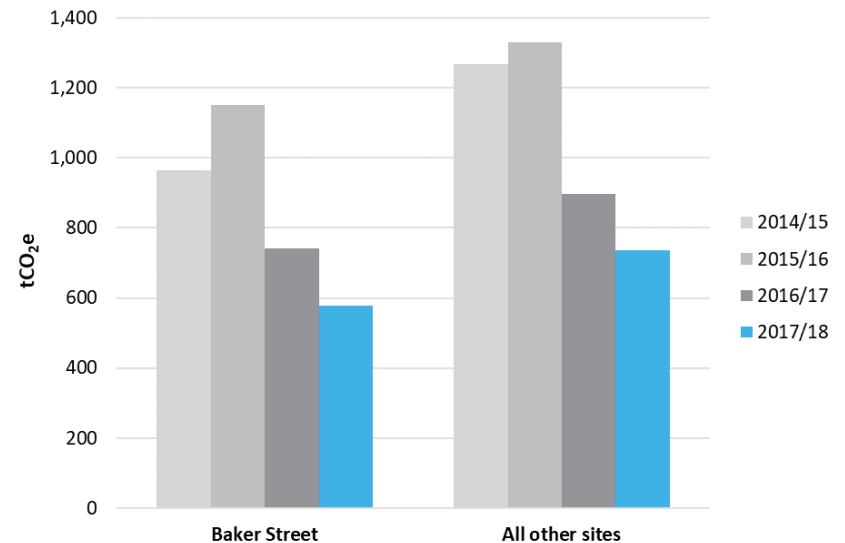
## Highlights

- Stable electricity consumption year on year across BDO's portfolio.
- Reduction in emissions across all BDO sites due to significant decarbonisation of the UK grid.
- Since the shift to the managed data service quarterly reporting approach, significantly lower levels of estimation have been required in BDO's reporting.
- Baker Street electricity consumption has reduced in line with improved data accuracy and changes to building occupancy.

### Electricity Consumption: Baker Street vs all other sites (kWh)



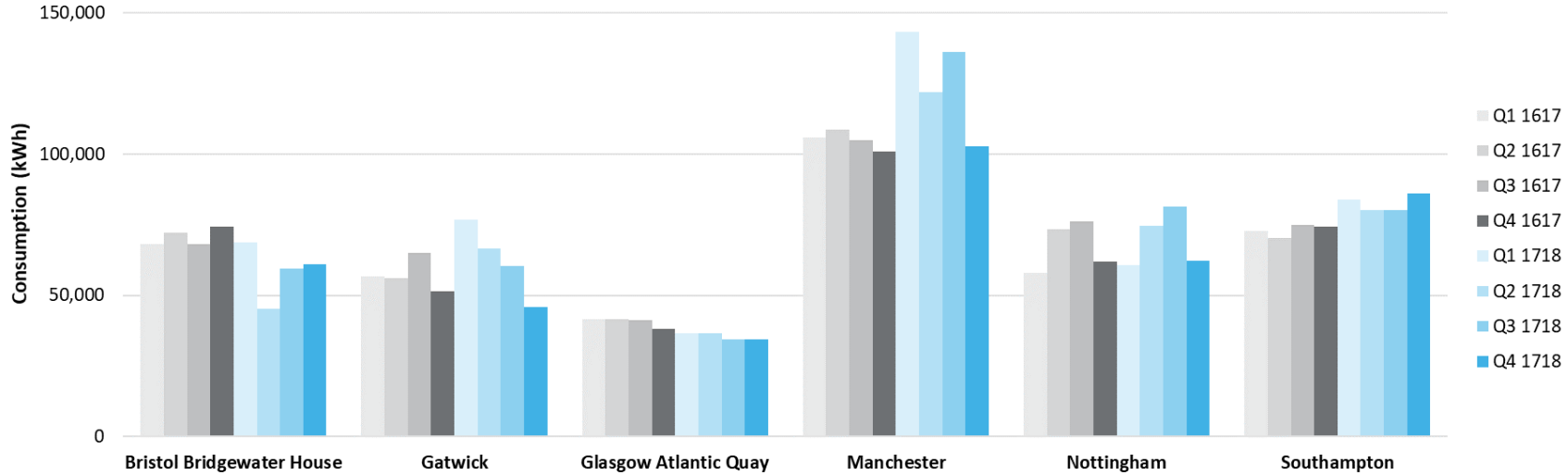
### Electricity Emissions: Baker Street vs all other sites (tCO<sub>2</sub>e)



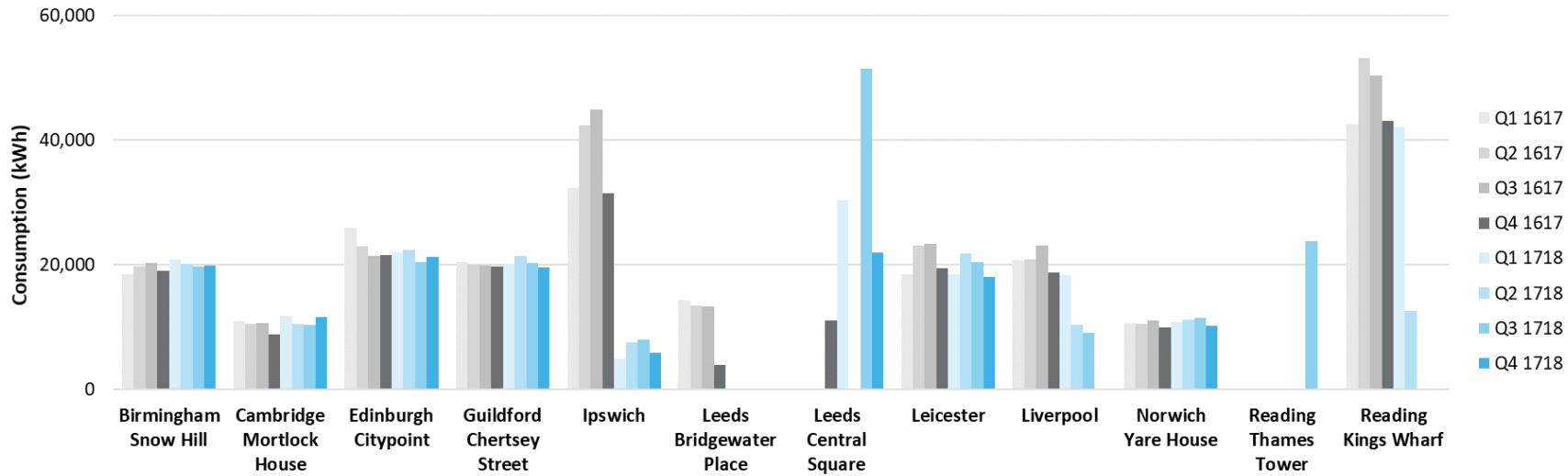


# Quarterly Electricity Consumption across BDO's portfolio

## Quarterly Electricity Consumption at BDO's Larger Sites (excl. Baker Street) (kWh)



## Quarterly Electricity Consumption at BDO's Smaller Sites (kWh)



\*At Leeds Central Square, spike in consumption in Q3 includes Q2 & Q3 consumption due to missing Q2 data.

\*Open query at Ipswich due to low consumption in 2017/18 after faulty meter was replaced

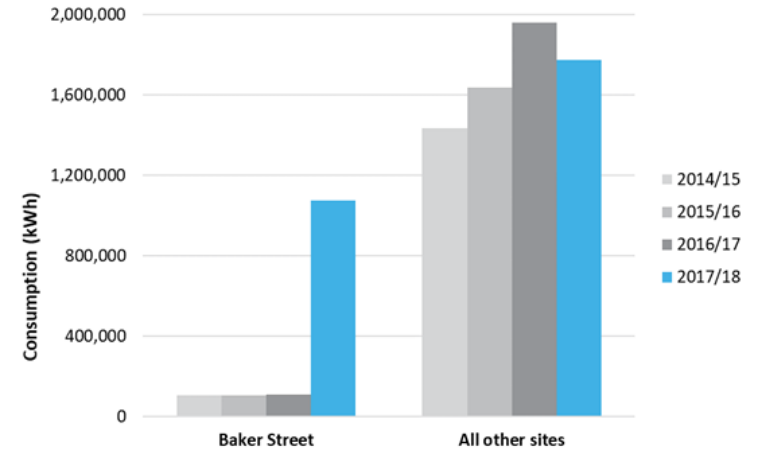


# Natural Gas Performance

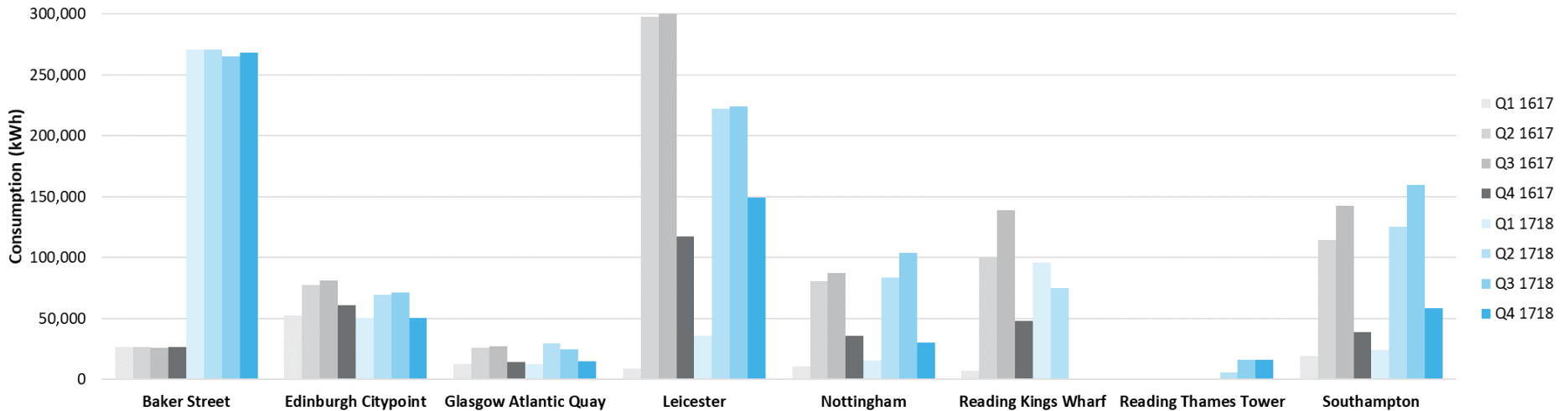
## Highlights

- Baker Street Natural Gas no longer estimated, actual data.
- Quarterly snapshot shows seasonality of natural gas consumption. With the exception of Baker Street due to receiving annual data for 2017/18.

## Annual Natural Gas Emissions: Baker Street vs all other sites (tCO<sub>2</sub>e)



## Quarterly Natural Gas Consumption (kWh)



A vibrant green background featuring a close-up of fresh leaves at the top, with bright sunlight filtering through, creating a bokeh effect of soft, glowing circles. The overall tone is bright and natural.

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