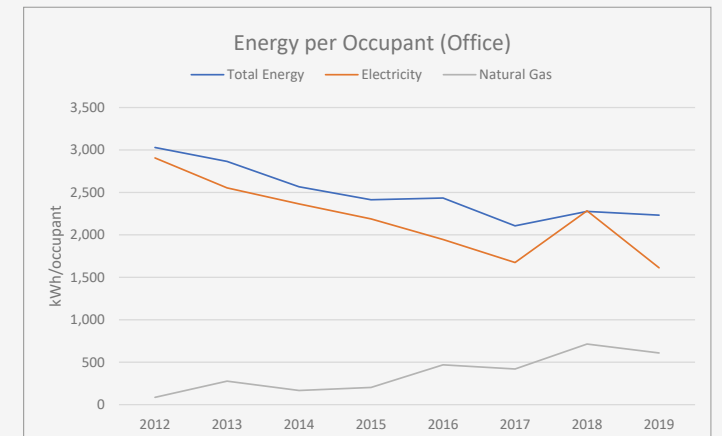
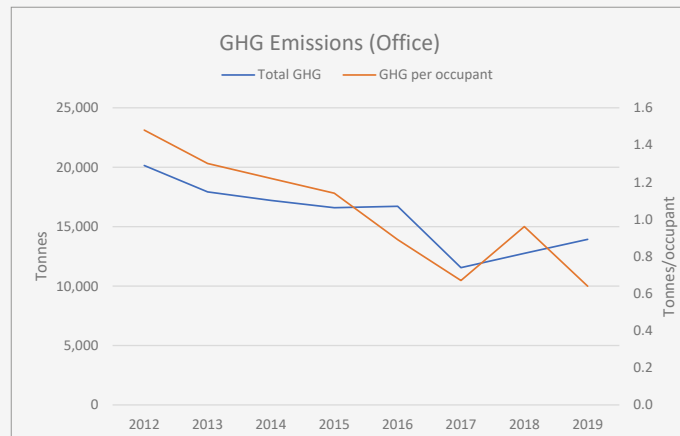
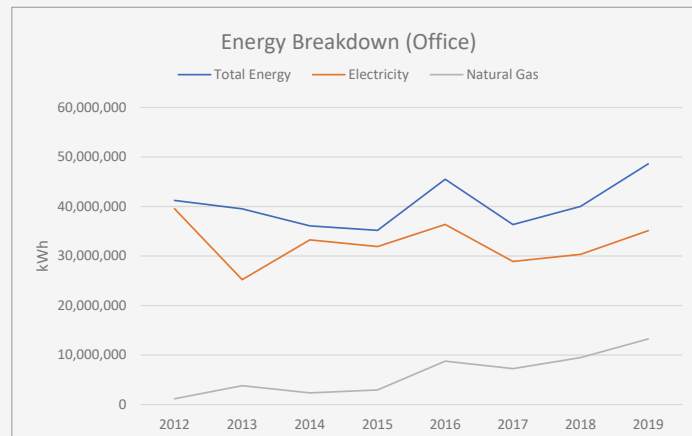


Canary Wharf Management

Energy and Greenhouse Gas Emissions

Office Buildings

| | CHANGE 2018-19 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 |
|---------------------------------|----------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Energy (kWh) | 21.48% | 48,622,774 | 40,025,858 | 36,346,824 | 45,513,963 | 35,186,231 | 36,094,435 | 39,520,721 | 41,236,091 |
| Energy (kWh/occupant) | -1.95% | 2,232 | 2,276 | 2,106 | 2,434 | 2,413 | 2,566 | 2,865 | 3,029 |
| GHG emissions (tonnes) | 9.19% | 13,929 | 12,757 | 11,552 | 16,711 | 16,596 | 17,207 | 17,925 | 20,147 |
| GHG emissions (tonnes/occupant) | -33.42% | 0.6 | 1.0 | 0.7 | 0.9 | 1.1 | 1.2 | 1.3 | 1.5 |
| Electricity (kWh) | 15.79% | 35,121,685 | 30,331,979 | 28,891,270 | 36,383,341 | 31,901,673 | 33,263,381 | 25,227,759 | 39,559,416 |
| Electricity (kWh/occupant) | -29.39% | 1,612 | 2,283 | 1,674 | 1,946 | 2,188 | 2,365 | 2,554 | 2,906 |
| Gas (kWh) | 39.76% | 13,255,527 | 9,484,497 | 7,258,933 | 8,775,539 | 2,960,513 | 2,350,584 | 3,812,492 | 1,170,927 |
| Gas (kWh/occupant) | -14.78% | 608 | 714 | 421 | 469 | 203 | 167 | 276 | 86 |
| Gas oil (kWh) | 17.28% | 245,562 | 209,382 | | | | | | |
| Gas (kWh/occupant) | -28.49% | 11 | 16 | | | | | | |
| Fuel oil (kWh) | - | 0 | 0 | 196,621 | 355,083 | 324,045 | 480,470 | 480,470 | 505,748 |
| Fuel oil (kWh/occupant) | - | 0 | 0 | 11 | 19 | 22 | 34 | 35 | 37 |

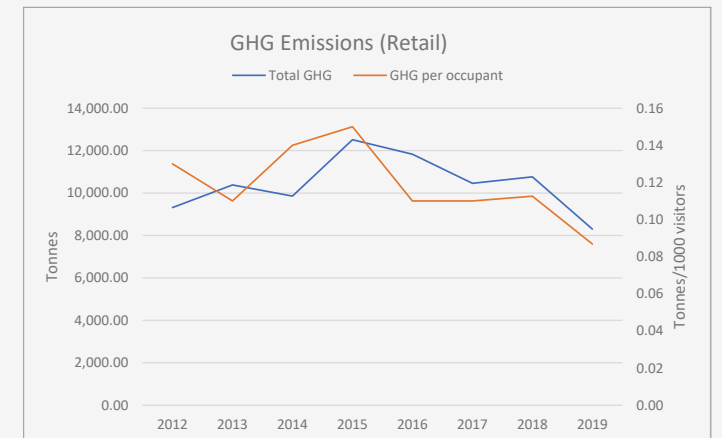
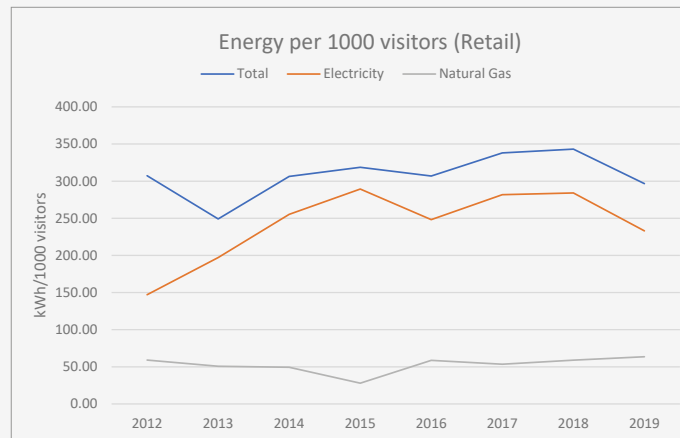
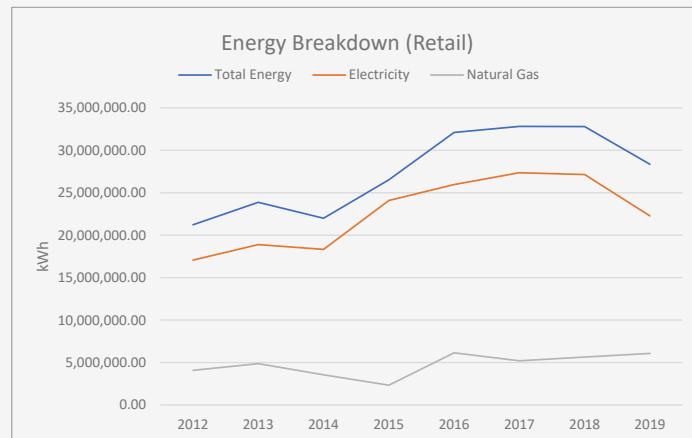


Canary Wharf Management

Energy and Greenhouse Gas Emissions

Retail

| | CHANGE 2018-19 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 |
|--------------------------------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Energy (kWh) | -13.55% | 28,353,780.66 | 32,798,872.23 | 32,820,401.00 | 32,105,771.00 | 26,526,885.00 | 21,998,828.52 | 23,874,926.52 | 21,226,914.23 |
| Energy (kWh/1000 visitors) | -13.55% | 296.62 | 343.12 | 337.97 | 306.90 | 318.62 | 306.38 | 249.12 | 307.30 |
| GHG emissions (tonnes) | -22.86% | 8,301.72 | 10,762.17 | 10,458.24 | 11,827.80 | 12,513.00 | 9,858.00 | 10,381.00 | 9,314.00 |
| GHG emissions (tonnes/1000 visitors) | -22.86% | 0.09 | 0.11 | 0.11 | 0.11 | 0.15 | 0.14 | 0.11 | 0.13 |
| Electricity (kWh) | -17.97% | 22,272,609.49 | 27,153,030.65 | 27,361,502.00 | 25,958,929.00 | 24,090,960.00 | 18,328,486.00 | 18,888,672.00 | 17,066,793.00 |
| Electricity (kWh/1000 visitors) | -17.97% | 233.00 | 284.06 | 281.76 | 248.14 | 289.36 | 255.27 | 197.09 | 147.07 |
| Gas (kWh) | 7.72% | 6,075,639.04 | 5,640,309.19 | 5,198,509.00 | 6,143,204.00 | 2,327,910.00 | 3,546,176.00 | 4,862,088.00 | 4,078,549.00 |
| Gas (kWh/1000 visitors) | 7.72% | 63.56 | 59.01 | 53.53 | 58.72 | 27.96 | 49.39 | 50.73 | 59.04 |
| Gas oil (kWh) | -0.00% | 5,532.13 | 5,532.38 | | | | | | |
| Gas (kWh/occupant) | -0.00% | 0.000058 | 0.000058 | | | | | | |
| Fuel oil (kWh) | - | - | 0.00 | 260,390.00 | 3,638.00 | 108,015.00 | 124,166.52 | 124,166.52 | 81,572.23 |
| Fuel oil (kWh/1000 visitors) | - | - | 0.00 | 2.68 | - | - | - | 1.30 | - |



Canary Wharf Management

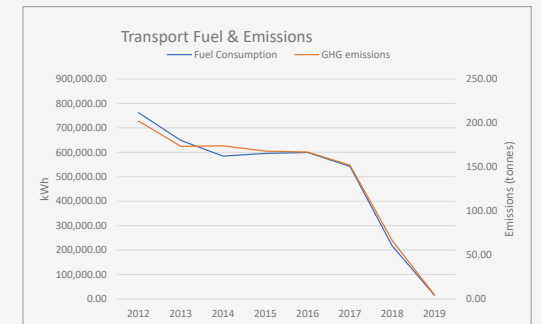
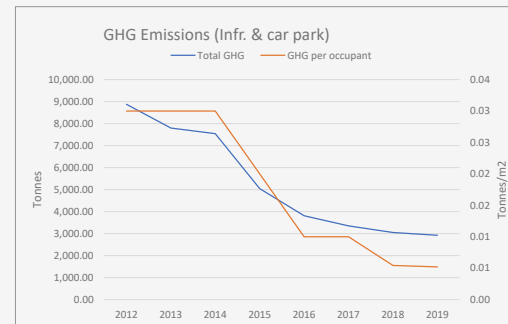
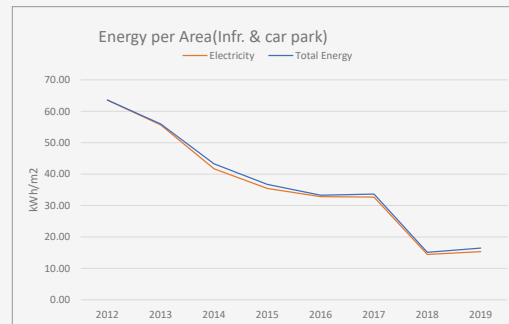
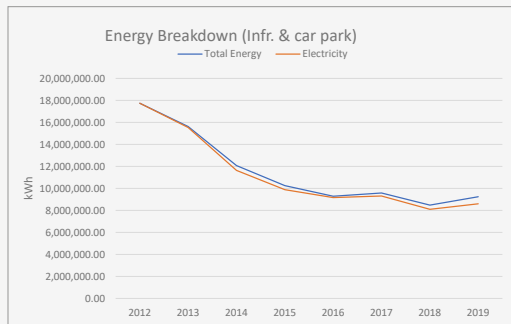
Energy and Greenhouse Gas Emissions

Infrastructure and Car Parks

| | CHANGE 2018-19 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 |
|--|----------------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|
| Energy (kWh) | 8.95% | 9,242,037.37 | 8,482,849.59 | 9,582,264.00 | 9,292,844.00 | 10,252,040.00 | 12,079,773.11 | 15,625,830.71 | 17,745,758.00 |
| Energy (kWh/m ²) | 8.95% | 16.46 | 15.11 | 33.64 | 33.29 | 36.72 | 43.27 | 55.97 | 63.57 |
| GHG emissions (tonnes) | -4.17% | 2,924.73 | 3,052.09 | 3,352.93 | 3,814.04 | 5,046.00 | 7,544.00 | 7,799.00 | 8,879.00 |
| GHG emissions (tonnes/m ²) | -4.17% | 0.01 | 0.01 | 0.01 | 0.01 | 0.02 | 0.03 | 0.03 | 0.03 |
| Electricity (kWh) | 6.20% | 8,603,322.77 | 8,101,108.80 | 9,309,971.00 | 9,165,193.00 | 9,888,200.00 | 11,642,491.00 | 15,539,454.00 | 17,745,758.00 |
| Electricity (kWh/m ²) | 6.20% | 15.32 | 14.43 | 32.68 | 32.83 | 35.42 | 41.70 | 55.66 | 63.57 |
| Gas (kWh) | - | 0.00 | 0.00 | | | | | | |
| Gas (kWh/m ²) | - | 0.00 | 0.00 | | | | | | |
| Gas oil (kWh) | 67.32% | 638,714.59 | 381,740.79 | | | | | | |
| Gas oil (kWh/m ²) | 67.32% | 1.96 | 1.17 | | | | | | |
| Fuel oil (kWh) | - | 0.00 | 0.00 | 272,293.00 | 127,651.00 | 363,840.00 | 437,282.11 | 86,376.71 | - |
| Fuel oil (kWh/m ²) | - | 0.00 | 0.00 | 0.96 | 0.46 | 1.30 | 1.57 | 0.31 | - |

Transport

| | | | | | | | | | |
|------------------------|---------|-----------|------------|------------|------------|------------|------------|------------|------------|
| Fuel (kWh) | -92.79% | 15,641.21 | 217,028.61 | 542,401.86 | 599,155.27 | 595,606.16 | 584,315.94 | 648,561.61 | 761,998.21 |
| GHG emissions (tonnes) | -93.00% | 4.64 | 66.31 | 152.12 | 166.94 | 168.04 | 173.99 | 173.44 | 202.20 |

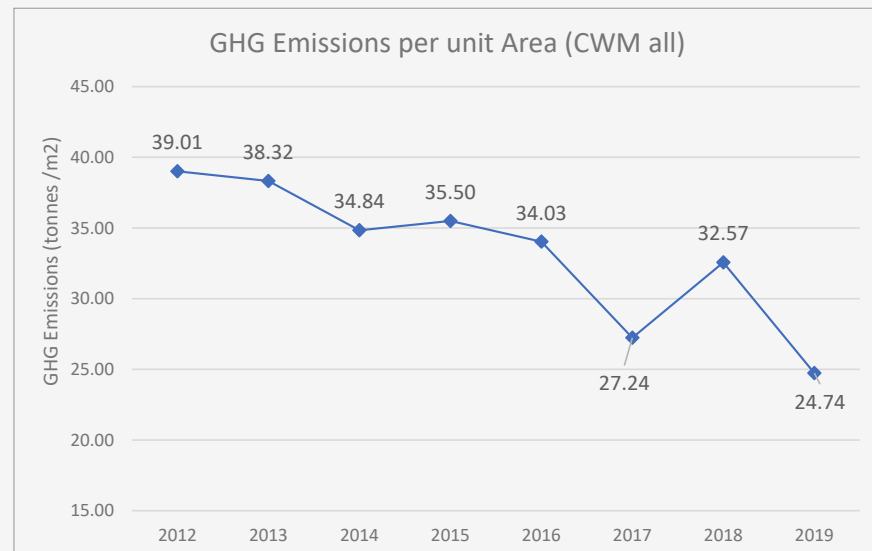


Canary Wharf Management

Energy and Greenhouse Gas Emissions

CWM (Office, Retail, Infrastructure & Car Parks)

| | CHANGE 2018-19 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 |
|--|----------------|-----------|------------|------------|------------|------------|------------|------------|-----------|
| GHG Emissions (tonnes) | -5.33% | 25,155.67 | 26,571.69 | 25,362.72 | 32,352.67 | 34,155.00 | 34,609.00 | 36,105.00 | 38,340.00 |
| Area (m ²) | 24.63% | 1,016,952 | 815,953.50 | 931,254.58 | 950,607.60 | 962,203.27 | 993,418.60 | 942,083.29 | 982,788 |
| GHG Emissions per area (kWh/m ²) | -24.04% | 24.74 | 32.57 | 27.24 | 34.03 | 35.50 | 34.84 | 38.32 | 39.01 |



Canary Wharf Management

Water

CWM (Office, Retail, Infrastructure & Car Parks)

| | OFFICE | | | | RETAIL | | | INFRASTRUCTURE / CAR PARKS | | |
|------------------|-------------|-------------------------------|-----------------------|-----------------------------|-------------|------------------------------------|-----------------------|----------------------------|---------------------------|-----------------------|
| | Water Mains | Water mains (per occupant) | Discharge to sewer | Discharge to evaporation | Water Mains | Water mains (per 1000 visitors) | Discharge to sewer | Water Mains | Water mains (per area) | Discharge to sewer |
| Change 2018-2019 | -36.66% | -48.88% | -36.66% | - | -3.56% | -3.56% | -3.56% | 296.86% | 357.24% | 296.86% |
| 2019 | 200,735 | 9 | 157,762 | 0 | 34,603 | 0.4 | 31,670 | 83,284 | 0.18 | 74,123 |
| 2018 | 316,941 | 18 | 249,091 | 0 | 35,881 | 0.4 | 32,839 | 20,986 | 0.04 | 18,677 |
| 2017 | 267,356 | 15 | 210,121 | 57,235 | 63,325 | 0.7 | 57,957 | 24,801 | 0.09 | 22,073 |
| 2016 | 326,193 | 17 | 259,999 | 66,194 | 68,987 | 0.7 | 62,378 | 22,075 | 0.08 | 19,647 |
| 2015 | 231,080 | 16 | 179,106 | 51,974 | 116,052 | 1.2 | 115,490 | 23,559 | 0.08 | 23,559 |
| 2014 | 266,582 | 19 | 206,278 | 60,304 | 92,941 | 1.0 | 92,868 | 2,292 | 0.01 | 2,292 |
| 2013 | 147,924 | 11 | 118,355 | 29,569 | 39,948 | 0.4 | 399,322 | 31,327 | 0.11 | 31,327 |
| 2012 | 220,339 | 16 | 220,339 | - | 51,973 | 0.5 | 51,973 | 65,473 | 0.23 | 65,473 |

Scope

Scope (Inclusions & Exclusions)

Normalised data includes landlord-influenced areas only, and excludes tenant areas.
 Transport fuel includes diesel, unleaded and red diesel consumed by CWM owned vehicle fleet.
 All normalised data includes Scope 1, Scope 2 and Scope 3 emissions.

Estimation Techniques & Assumptions

ENERGY, CARBON & GREENHOUSE GAS EMISSIONS

Meter readings recorded by the appointed third party are assumed to be true and correct. Where information for the full year is not available, the following estimations have been made:

Gas: Consumption has been derived from meter data received. In the absence of available data a particular month, consumption for this month has been estimated by taking an average from a suitable time period.

Electricity: Data has been sourced from invoices, fiscal and non-fiscal meters across the estate and from UKPN - for the boundary point consumption of buildings. The boundary consumption is of relevance for calculating the net consumption of buildings on the Canary Wharf estate as tenants of Canary Wharf buildings have the choice to purchase their own electricity direct from suppliers as well as from CWG. As such visibility of the electricity consumption of tenants in CWG buildings who source electricity independently of CWG would not be possible without knowing the boundary point consumption. The difference between the A (the sum of the total landlord consumption and the tenant consumption recharged by CWG to tenants) and B (the boundary point consumption) for a building can be said to be the consumption of tenants with independent electricity supply arrangements (+ losses).

Oil: Consumption data has been provided by building managers for gas oil. Fuel oil is not used on the estate.

PV: The PV generation of 75,410 kWh at BP4 in 2018 and 9285 kWh at 5 Bank Street is used entirely within the buildings by the landlord.

WATER

Water data has been sourced from meters across the estate. Where required, to remove the risk of under-reporting, 2018 water consumption data has been used for some buildings in lieu of available 2019 data.

Inter-building flows: There are three flows of chilled water between buildings on the estate. HQ3 supplies chilled water to RT3. HQ4 (no longer within CW estate) also supplies chilled water to RT3 and thirdly, DS7 supplies chilled water to RT2.

For chilled water creation an efficiency of 300% has been assumed - this means for each kWh of electricity consumed by a chiller 3kWh of cooling is delivered. In balancing inter-building flows of energy chilled water flows have been considered as flows of electricity. If for example the chilled water heat meter in RT2 showed a net annual consumption of 300kWh received from DS7 our building level consumption calculations would include a 100kWh export from DS7 to RT2 and RT2 would include a 100kWh import from DS7.

Intra-building flows: BP4 and RT5 generate their own LTHW which is for which tenants' consumption is metered and paid for. Accordingly 'tenant' consumption of gas within these buildings reflect this metered consumption of LTHW by tenants. An assumed LTHW production efficiency of 90% has been adopted, as in previous years - this means that if tenants in a building were metered as consuming a total of 100 kWh LTHW over the course of the year this would appear as a 111.1 kWh consumption of gas by tenants at the building level.

BUILDING LEVEL ASSUMPTIONS

For continuity motorbike parking spaces have been counted as 1/3 of a car parking space. This is the same approach as has been used in previous years.

BOUNDARY POINT CONSUMPTION

In the absence of consumption data for tenants in CWG buildings who do not procure their electricity from CWG boundary level consumption data is required to calculate building level consumption correctly. The 2018 boundary consumption data from UKPN was made available in early February and so has been able to be included in this report. In previous years this has not been possible and data from previous years was used in lieu of data from the reporting year. This will result in a more representative and accurate allocation of electricity to the end user.

ENERGY SUPPLIED BY OTHER ORGANISATIONS

RT3 receives chilled water from HQ4 which is no longer in the CWG estate. As a result this now represents an energy flow into the estate from a non-CWG company.

DATA EXTRAPOLATION

In the instance that a meter has dropped out for a month or number of months in a year the data has been extrapolated based on the remaining months to ensure annual figure is as representative of the actual annual consumption as possible. Where a meter has been unavailable for a whole year or access to the meter has not been possible consumption from the previous reporting year has been used in lieu of available 2018 data.

Absolute / Source Data

Electricity (kWh)

Gas (m³)

Water - Mains (m³)

Water - Discharge by evaporation (m³)

Water - Discharge to foul sewer (m³)

Number of tenant occupants -

Average number for reporting period (No.)

Retail visitors - Reporting period (No.)

Infrastructure and Car Parks - Latest available floor area (Gross Internal Area) for reporting period (m²)

Conversion / Emission Factors

Department for Business, Energy & Industrial Strategy - Greenhouse gas reporting - Conversion factors.