

<b>Committee(s)</b>	<b>Dated:</b>
Resource Allocation Subcommittee	11/03/2024
<b>Subject: 23/24 Energy &amp; Decarbonisation Performance Q3 Update for the Operational Portfolio.</b>	
<b>Which outcomes in the City Corporation's Corporate Plan does this proposal aim to impact directly?</b>	<b>5,11,12</b>
<b>Does this proposal require extra revenue and/or capital spending?</b>	<b>no</b>
<b>If so, how much?</b>	<b>n/a</b>
<b>What is the source of Funding?</b>	<b>n/a</b>
<b>Has this Funding Source been agreed with the Chamberlain's Department?</b>	<b>No</b>
<b>Report of: The City Surveyor</b>	<b>For Information</b>
<b>Report author: Emma Bushell</b>	

### Summary

This report presents the 2023/24 Quarter 3 energy performance for the City of London Corporation (COLC) operational sites. There has been a 19.1% reduction in energy usage since the 2018/19 baseline year and we remain on track to achieve our Net Zero Carbon targets by 2027. The first phase of our capital programme has been approved with some of these projects being delivered and others still in development.

### Recommendation(s)

- Note, that for the rolling year, Q3 23/24 absolute energy consumption has reduced by 21% compared to the baseline year 2018/19 as compared to 18% for Q2 23/24.
- Note the Public Sector Decarbonisation Scheme (PSDS) funded work is complete and the energy and financial savings are being observed.

### Main report

#### Background

1. The 23/24 Q2 Energy performance report was submitted to the RASC meeting on 24<sup>th</sup> January 2024. This noted the rolling 12-month energy performance reduced by 17% on the weather-corrected values for the Climate Action Baseline year of 2018/19.
2. The Climate Action Strategy (CAS) year 3 plan for 2023/24 is being delivered, as approved by the Policy and Resources Committee. The plan includes NZ1 which focuses on reducing the carbon emissions within the City Corporation's estate through a range of tasks including capital works projects, building control improvements, and monitoring and targeting activities.

#### CAS target alignment

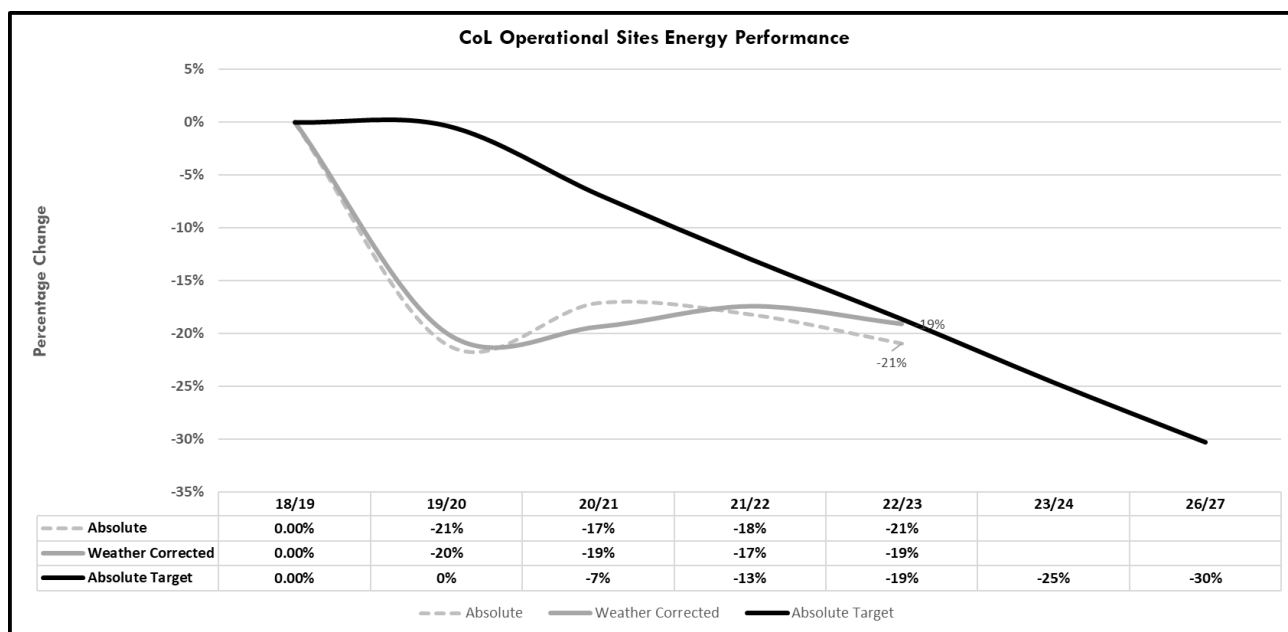
3. The CAS buildings baseline includes the operational property portfolio, landlord supplies to housing estates and investment properties.
4. To achieve the Net Zero CO<sub>2</sub> target by 2027 for our scope 1 and 2 operational emissions, residual emissions are planned to be mitigated via land-based carbon sequestration from our green spaces. These targets are translated into energy and CO<sub>2</sub>e, see Chart 1 and Chart 2 below.

## Current position

5. Over the last 12 months the 30 highest consuming sites have seen a reduction in energy consumption of 1,891 MWh (2%) when compared to the preceding 12 months (Appendix Table 1).
6. Year-on-year reductions in energy consumption have slowed as sites have returned to pre-pandemic levels of occupancy. In particular, the Barbican Arts Centre has seen a substantial increase over the past few quarters. A review of the metering data identified several meters showing a sudden increase in data from 22/07/2022 onwards. This was a result of previously estimated consumption being re-scaled in line with the actual data downloaded manually by a meter reader and is not indicative of a widespread metering fault.
7. The CAS Capital Delivery Programme for Operational Buildings, which was approved at Gateway 2 in December 2022, has progressed many projects within that programme to Gateway 5 stage. The programme is expected to provide 520 tonnes of CO<sub>2</sub>e savings per annum across our scope 1 and 2 emissions. This is further detailed in paragraph 15.

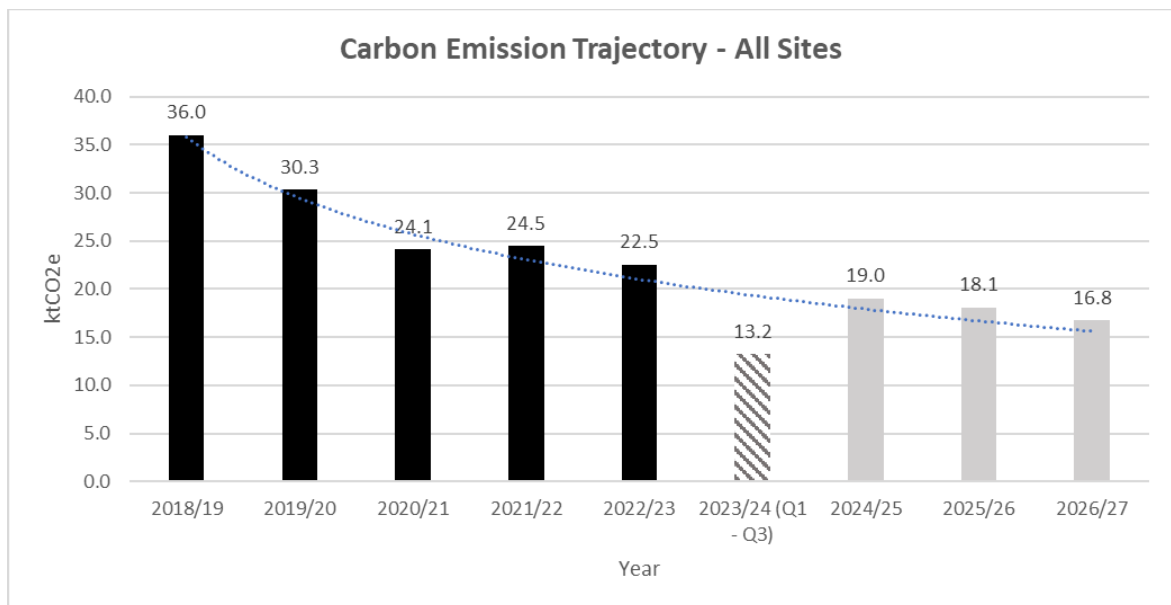
## Performance update

**Chart 1.** Performance against CAS target: Absolute and weather-corrected energy consumption.

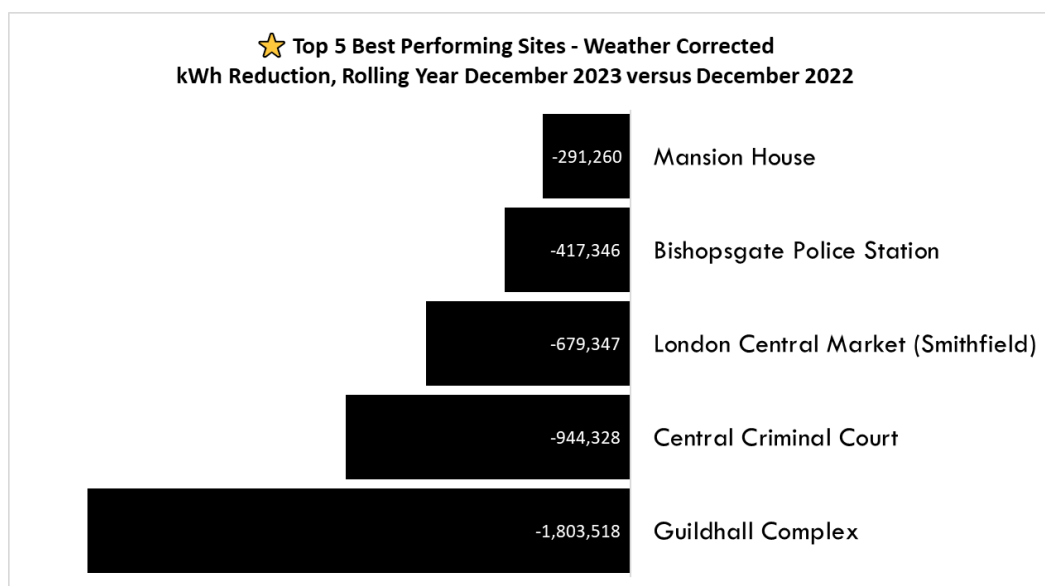


8. **Long-term:** Chart 1 shows continued progress towards the 2026/27 target. Compared to the 2018/2019 baseline, the performance up to Q3 2023/2024 indicates:
  - a. A 21% reduction in absolute energy consumption.
  - b. A 19% reduction when corrected for the weather.

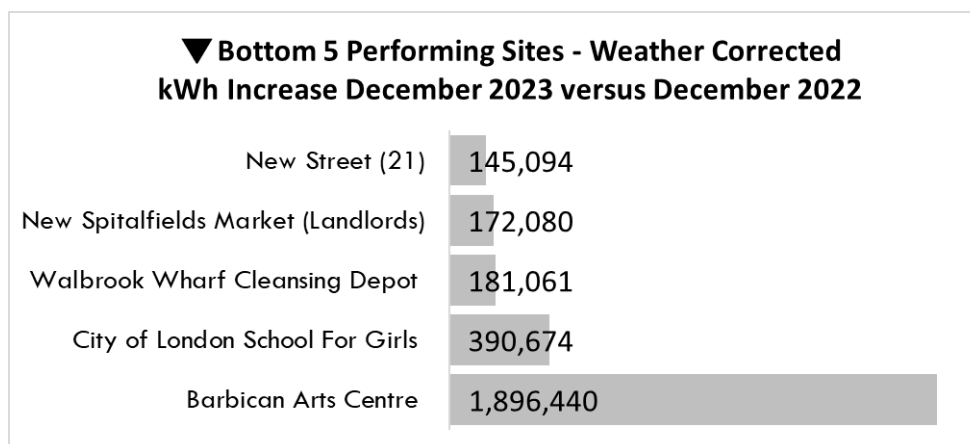
**Chart 2. Carbon Trajectory** progress towards the 2027 carbon target for the COLC portfolio



- a. The most recent full-year period (2022/23) saw emissions reduce by 13.5kt CO<sub>2</sub>e compared to the 2018/19 baseline. This is a 37% reduction.
  - b. Current data for 2023/24 which is Q1, 2 and 3 has emissions at 13.2kt CO<sub>2</sub>e. We are expected to remain on track with our emissions targets for 2023/24.
  - c. In the graph above, the black bars show how we have performed over previous financial years. The striped bar shows how we are performing this current financial year (until Q3), and the grey bars are the future targets until 2026/27.
9. The savings since 2018/19 demonstrate a positive trajectory for us to achieve the CAS 2027 Net Zero Carbon target. The completion of the energy and carbon saving projects under NZ1 will support the continued reduction of emissions.
10. **Chart 3.** Overall performance Q3 Top 5 sites – weather corrected.



**Chart 4:** Overall performance Q3 bottom 5 sites – weather corrected.



11. Chart 3 shows the top-performing sites with the highest energy reductions over the past 12 months to 31<sup>st</sup> December 2023, when compared to the previous 12 months. Chart 4 shows the worst-performing sites with the highest increases in energy use over the same period.
12. The top-performing sites have continued to show a reduction due to improved controls and the implementation of energy-saving measures.
13. The bottom sites have seen increases in heating demand and occupancy levels and increased refurbishment activities. The Energy and Sustainability Team continues collaborating with these sites to optimise their performance. Further information can be found in Table 2 of the Appendix.

#### **Progress on energy projects**

14. **PSDS Project:** In 2021 the COLC was awarded £9.5M under the Public Sector Decarbonisation Scheme (PSDS) to deliver energy efficiency works across five sites, anticipated to save annually c.900 tCO<sub>2</sub>e (based on 2027 carbon factors) and c.£600k in energy costs (based on 2021 energy prices). These works are now completed and our initial post-project verification indicates annual savings of c.780 tCO<sub>2</sub>e (based on projected 2027 carbon factors) and c.£1mil in avoided energy costs (based on current short-term projected prices). Where anticipated energy/carbon savings have not been achieved we are investigating. Final verification of the savings is expected at Gateway 6 in Q4.
15. **CAS Capital Programme:** NZ1 of CAS includes the development and delivery of a capital works programme to invest in carbon-saving projects across the scope 1 and 2 emissions within our buildings. In December 2022 Policy and Resources Committee approved a Gateway 2 paper setting out a programme of projects across our operational portfolio. The total capital cost is estimated at £5,338,615 (excluding risk) and targets savings of 520 tCO<sub>2</sub> per annum and energy cost savings of £550,000 per annum. The first projects have been approved at Gateway 5 and works onsite are proceeding. Eight further projects are in the design and development stages with Gateway approvals due in early 2024. For a full list of projects please see the Appendix.
16. **BEMS:** Improved control of our energy usage through the Building Energy Management System (BEMS) within buildings has played a key role in improving operational energy efficiency. This has been supported through the deployment of a pilot Building Analytics Platform at the Guildhall and LMA in 2022 and the further rollout to CCC and Mansion House is now complete. In the last quarter BEMS strategy improvements work has focused on, CCC, Freeman’s School, Mansion House, Smithfield Market and CoL School. The transition of the BEMS to a new platform has continued with projects close to completion at

LMA, Freeman's School (Junior block), Walbrook Wharf, Tower Bridge, and Smithfield West Market and projects at Gateway 5 for Guildhall East Wing (non-office areas), Heathrow Animal Reception Centre, and Epping Forest. These projects are enablers for further energy efficiency projects at these sites.

### **Corporate and strategic implications**

17. **Strategic implications:** Energy performance is linked to resilience and helps ensure business continuity through reduced pressure on the energy infrastructure within the square mile. We support a thriving economy by ensuring environmental responsibility in this way. Our energy performance helps to shape outstanding environments through the reduction of CO<sub>2e</sub> emissions and our commitment to procuring clean renewable energy. In this way, our energy performance helps shape outcomes 5, 11 and 12 of the Corporate Plan.
18. **Financial implications:** The savings in this report detail reductions in energy consumption and not against agreed budgets. For longer sustainable gains the focus needs to be on improving the efficient use of energy, through targeted investment in energy-saving measures. Note that future savings as a result of lower energy spend related to the PSDS project will be transferred to the Build Back Better fund for re-investment with further projects.

### **Conclusion**

The energy performance in Q3 23/24 remains on track with the long-term trajectory needed to meet our CAS targets for 2027. We continue to mobilise the workstream (NZ1) related to operational buildings within the Climate Action Strategy. We have absorbed the impact of the reoccupation of our building stock. Our new targets are challenging but the current data indicates achievable, requiring action in all areas of the City Corporation to ensure we meet our planned objectives. Our focus is now on ensuring the next phase of climate action projects can be implemented in a timely and effective manner.

### **Report authors**

**Emma Bushell** Energy and Carbon Manager, City Surveyor's Department

[emma.bushell@cityoflondon.gov.uk](mailto:emma.bushell@cityoflondon.gov.uk)

**George Stroud** Energy and Sustainability Reporting Manager, City Surveyor's Department

[George.stroud@cityoflondon.gov.uk](mailto:George.stroud@cityoflondon.gov.uk)