Committee(s): Resource Allocation Subcommittee, RASC – For Information	**Dated:** 03/02/2025
Subject: 24/25 Energy & Decarbonisation Performance Q2 Update for the Operational Portfolio	**Public report:** For Information
This proposal: • **delivers Corporate Plan 2024-29 outcomes of Leading Sustainable Environment**	Leading Sustainable Environment
Does this proposal require extra revenue and/or capital spending?	No
If so, how much?	n/a
What is the source of Funding?	n/a
Has this Funding Source been agreed with the Chamberlain's Department?	No
Report of:	The City Surveyor
Report author:	Emma Bushell

Summary

This report presents the 2024/25 Quarter 2 energy performance for the City of London Corporation (COLC) operational sites. There has been a 21.9% reduction in weather-corrected energy usage and a 23.9% reduction in absolute performance since the 2018/19 baseline year but despite this, we are off track to achieve our Net Zero Carbon target by 2027.

Recommendation(s)

- Note, that for the rolling year, Q2 24/25 weather-corrected energy consumption has reduced by 23.9% compared to the baseline year 2018/19 compared to 22.7% for Q1 23/24.

Main Report

Background

1. The 2024/25 Q1 Energy Performance Report was submitted to the RASC meeting on 30th October 2024. This noted that the rolling 12-month energy performance was reduced by 22.7% based on the weather-corrected values for the Climate Action Baseline year of 2018/19.
2. The Climate Action Strategy (CAS) Year 4 Plan for 2024/25 is being delivered, as approved by the Policy and Resources Committee. The plan includes the Operational Properties and Housing (landlord areas) project, 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 and landlord supplies to housing estates and investment properties.
4. Our 2023/24 interim target was a reduction of 84% against the 2018/19 baseline. We achieved a 65% reduction on baseline, missing our target by 19%. The main cause for missing the 2023/24 target was due to a 7% increase in the carbon factor of National Grid electricity since last year (i.e. more carbon-intense energy in the electricity mix).
5. We need to reduce our emissions by a further 7kt CO_2e by 2026/27 (from 2023/24) to reach net zero. Works currently planned in the Operational Property Portfolio and Housing (landlord areas) are planning to save 6.7 ktCO2e, with the remainder delivered through the Investment Property Portfolio landlord areas. If the National Grid decarbonises as expected, and all planned capital works are delivered on time, we should reach net zero. If works are not all delivered as planned, or the grid decarbonisation underperforms, we risk missing net zero in 2027.

Current position

6. For the rolling year, Q2 24/25 weather-corrected energy consumption has reduced by 21.9% compared to the baseline year 2018/19 (Appendix Figure 1).
7. Over the last 12 months the 30 highest consuming sites have seen a reduction in weather-corrected energy consumption of 7,982 MWh (8.5%) when compared to the preceding 12 months (Appendix Figure 4).
8. For the rolling year, Q2 24/25 absolute energy consumption has also reduced by 23.9% compared to the baseline year 2018/19 (Appendix Figure 2).
9. Energy consumption has now decreased past the lows of 2020/21 when the COVID-19 lockdown significantly reduced building operations across the estate.
10. A significant contributor to this reduction in energy consumption is the removal of the poultry market at Smithfield Market. This removal accounts for roughly 1,950 MWh of the 7,982 MWh drop in energy consumption.
11. 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 the Gateway 5 stage. The programme is expected to provide 722 tonnes of CO_2e savings per annum across our scope 1 and 2 emissions. This is further detailed in paragraph 19.
12. The City Corporation is currently off target to achieve net zero in its operations by 2027 (Appendix Figure 3). This is primarily due to the electricity grid not decarbonising at the predicted rate, and delays to major Corporation projects which would have delivered significant emissions reductions (including Guildhall and Barbican renewal). We have updated our interim energy and emissions targets for 2024/25 and 2025/26, refreshing our pathway to net zero to account for performance to date to ensure we hit the net zero 2027 goal.

13. The City Corporation has a power purchase agreement (PPA) with a solar farm in Dorset which generates and provides approximately 54,000 MWh of electricity per year. This agreement came into effect in January 2023.

14. If you consider the electricity generated by the PPA as having zero emissions (market-based), then the City Corporation would have achieved net zero carbon in its operations last year (-4.3kt CO_2-e).

15. In line with best practice international emissions accounting requirements, the PPA is not counted in the net zero targets (location-based emissions). Market-based emissions, which account for renewable energy procurement, reflect the impact of Power Purchase Agreements (PPA) and renewable electricity tariffs. In 2023/24 our operational (Scopes1 & 2) market-based net emissions were -6.5 ktCO2e. Whilst this is not how our net zero target is calculated, we do include market-based emissions in our annual report.

Progress on energy projects

CAS Capital Programme

16. The Corporate Property project plan 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. Energy Efficiency projects currently in development have an estimated capital cost of £8,011,110 (incl. risk), targets savings of 500t CO_2-e per annum and energy cost savings of £447k per annum.

17. 22 sub-projects (each being a combination of works/measures), across 11 sites are in progress. With projects complete at BAC (pumps and lighting), Guildhall (lighting), Tower Hill Coach & Car Park (lighting and ventilation). Other projects are in delivery at London Archive (solar), Walbrook Wharf (ECM), Mansion House (ECM), Heathrow Animal Reception Centre (prelims for ECM) and Parliament Fields Lido (solar). The remaining projects are in the final stages of development. For a list of projects please see Appendix Figure 6.

BEMS

18. 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 (Building Advisor) at the Guildhall, LMA, CCC and Mansion House. The building advisor monitors the plant continuously to highlight plant equipment that appears to be running abnormally or inefficiently. This can help to reduce energy waste by rectifying these issues.

19. In the last quarter, BEMS strategy improvements work has focused on, CCC, Freemen's School, Mansion House, Smithfield Market and COLC School. The transition of the BEMS to a new platform has been completed at the London Archive, Freemen's School (Junior block), Walbrook Wharf and Tower Bridge. The transition of the BEMS to a new platform has continued with projects close to completion at Smithfield West Market Car Park and Heathrow Animal Reception Centre, while the project at the Guildhall East Wing (non-office

areas) is due to be started in the new year. These projects are enablers for further energy efficiency projects at these sites.

20. Schneider Electric Consultancy team have been engaged to review the BEMS control strategy on several sites with a view to optimise the control which will reduce energy waste and carbon emissions as well as improve environmental conditions.

Corporate and strategic implications

21. **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_2-e emissions and our commitment to procuring clean renewable energy. In this way, our energy performance helps shape the outcome of "Leading Sustainable Environment".

22. **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 because of lower energy spend related to the PSDS projects will be transferred to the Build Back Better fund for re-investment with further projects.

Conclusion

23. Energy consumption in Q2 24/25 has reduced compared with Q2 23/24 but despite this, we are off track to achieve Net Zero Carbon in our own operations by 2027. This is primarily due to carbon factors of the Grid not reducing as predicted. Our interim pathway to net zero by 2027 has been refreshed to account for performance to date. We continue to mobilise the workstream related to operational buildings within the Climate Action Strategy. We have absorbed the impact of the reoccupation of our building stock following the COVID-19 pandemic.

24. Our carbon target is 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.

Appendices

Appendix 1 - Energy & Decarbonisation Performance Update

Report authors

Emma Bushell Energy and Carbon Manager, City Surveyor's Department emma.bushell@cityoflondon.gov.uk

Stephanie Robertson Energy and Sustainability Reporting Manager, City Surveyor's Department

Stephanie.robertson@cityoflondon.gov.uk

George Stroud Energy and Sustainability Reporting Manager, City Surveyor's Department
George.stroud@cityoflondon.gov.uk