



ALEXANDRA PARK AND PALACE CHARITABLE TRUST BOARD

Agenda Item 12

29 October 2026

Report Title: Environmental Sustainability update report

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Purpose: To update the Board on the 2025/26 Carbon Footprint, the work on the *Zero Carbon Accelerator* project and other sustainability initiatives. To update the Board and seek approval for the Carbon Reduction Plan and the formal target to reach Net Zero by 2041.

1. Recommendations

- 1.1 To note the contents of this report and approve the Carbon Reduction Plan at Appendix 1.

2. Executive Summary

- 2.1 The report sets out updates on the carbon emission figure for 2025/26, explains progress related to the Zero Carbon Accelerator project, details some of the sustainability initiatives undertaken last year and seeks approval for the carbon reduction plan.

3. 2025/26 Carbon Footprint Update

- 3.1 The carbon footprint for the Park and Palace has been calculated for 2025/26. The headline figure is **2,558 tonnes of CO₂** which is almost 15% lower than the 2019-20 baseline (3,004 tCO₂). A breakdown of this number is shown in Figure 1 below. Notable changes over this period are that emissions from electricity consumption in some buildings in the Park have been included for the first time. The electricity consumption for the main Palace building has reduced 22%, which is likely a result of incremental improvements such as replacement heating pumps and on-going low energy lighting upgrades. It should be noted that the emissions associated with the supply chain (Scope 3) have not been quantified. Scope 3 emissions are notoriously difficult to measure, and efforts are being focused on the significant challenges involved in reducing Scope 1 and 2 emissions.

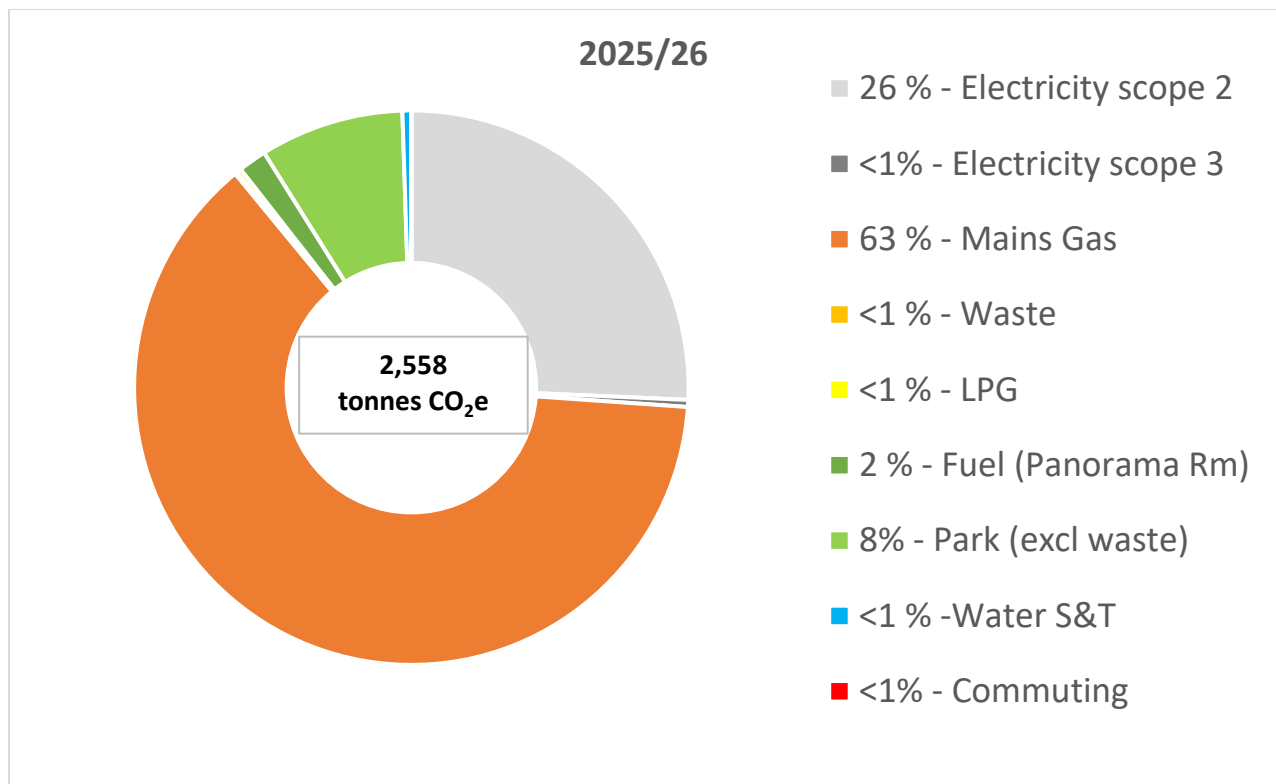


Figure 1: Carbon Footprint breakdown by category

- 3.2 A *carbon intensity ratio* allows for a better comparison from year to year as event bookings and visitor numbers change. The ratio is calculated by dividing the total carbon emissions by the number of visitors. Whilst visitor numbers increased by 3.6% in 2025/26, the carbon intensity ratio reduced from 2.6 to 2.4kgCO₂ per visitor.

4. Zero Carbon Accelerator (ZCA)

- 4.1 The GLA funded ZCA scheme provided support from consultants MottMacDonald to assess and analyse pathways to Net Zero, potential funding sources and procurement routes. Building on previous reports and improvement works across site, MottMacDonald produced their final reports in July.
- 4.2 The reports breakdown of the huge amount of work required to reach Net Zero into three, more manageable packages.

Package 1. Energy Efficiency Measures: short term

Package 2. Energy Generation: medium term

Package 3. Heat Decarbonisation: long term

4.3 Package 1. Energy Efficiency Measures

The suggested measures include a range of improvements to the systems and fabric of Alexandra Palace intended to reduce energy demand and therefore carbon emissions. Each individual measure could save around 2% of the total carbon emissions. This follows the *fabric first* principle which prioritises improvements to the building, so it is ready for future heat decarbonisation measures. The high-level capital costs for the measures have been estimated by the consultants at £275k with an annual cost saving of £79k once all projects are completed. These measures all require external funding and then careful programming. The Fundraising Team worked with MottMacDonald to create a funding *Masterbid* to call for support. This explains the funding need without being too technical and with validation of the numbers from the MottMacDonald and the GLA.

Package 1 Suggested Measures	Potential annual carbon saving
Hot water flow restrictors on taps To reduce hot water demand	24 t
Daylight & movement controls for lighting To improve lighting efficiency	31 t
Destratification Fans in East Court & Palm Court To blow warm air down to ground level and increase comfort and reduce heating demand	19 t
Air Curtains on external doors in East Court & Palm Court Create a barrier to the external environment and reduces heat loss	28 t
Optimisation of Building Management System (BMS) Gives finer control to systems to react to demand in individual zones	38t
Electrify appliances main kitchen Reduce demand for gas	0.5 t

4.4 Other Energy Efficiency Measures

Three other energy efficiency measures are under consideration:

- Waste heat recovery from the ice rink air handling unit. A concept stage report from the Palace's heating engineers identified heat could potentially be recovered at 35°C to feed into the heating system (saving 16% of carbon emissions). This report was reviewed by the ZCA consultants but due to the uncertainties in the data, they recommended further detailed investigations. The ZCA scheme may be an appropriate route to undertake these investigations without incurring fees.

- The freezers in the main kitchen are beyond their designed lifespan, and temporary freezers have been installed. Replacement or refurbishment of the freezers is being considered in the scope for the kitchen upgrade project in 2026/27.
- Air curtains are due to be installed on the Great Hall doors (rose window exit) to reduce heat loss when these large doors are used for events.

Other Energy Efficiency Measures	Potential annual carbon saving
Waste Heat recovery: ice rink air handling units	435t
Upgrade freezers in main kitchen	<i>Not quantified during ZCA process</i>
Air Curtain Great Hall doors (rose window)	<i>Not quantified during ZCA process</i>

4.5 **Package 2. Energy Generation**

This package includes potential medium-term options for electricity generation. The consultants investigated solar panel canopies over the car parks and wind turbines in the park. Despite the size of the Park, there are many constraints on such developments. These include site planning designations, voltage drop over long distances and conflict with operational uses (unit base parking for example). High-level estimates are that individual installations could cost £300,000 - £500,000. These options will be reviewed in the next six-months, and funding will be sought for more detailed feasibility work and business case development if deemed appropriate. The ZCA is a potential route for this feasibility work.

4.6 **Package 3. Heat Decarbonisation**

The consultants reviewed the options for ground source and air source heat pumps as potential replacements for the current gas boilers. As the gas boilers are relatively new, any decision on replacement will not be required until around 2035 as they approach their end of life. Ground source and air source heat pumps work at lower flow temperatures so extensive refurbishment of the Palace's heat distribution system and radiators will be required. The costs for heat pumps are currently forecast at around £14,000,000 with an associated increase in operational costs (as the electricity required to run the heat pumps is more expensive than the equivalent gas consumed by the boilers). The Haringey District Energy Network is a potential alternative source of low-carbon heat. This option depends on significant progress of the network by the time of the key

decision point around 2035. The funding opportunities and progress of the heat network will be monitored, and the situation will be kept under review.

5. Sustainability Initiatives

5.1 Staff across the organisation are working toward making the Park and Palace a *sustainable home for all that we do*. Recent highlights include:

1. The ongoing lighting improvements. Recent works include improvement to lighting controls for the ice rink. The team now have access to an on-line portal to control the lights that overcomes some issues accessing a control panel locked in an electrical cupboard. Approximately 82% of the lighting fixtures in the Palace are now low-energy LEDs, of a total of 2,430
2. We have been working with a new water supplier to identify leaks and make improvements to water efficiency. The company have undertaken a site audit covering the Park and Palace and they have opened discussions with Thames Water to assist in upgrading meters and identifying leaks. The meters have been upgraded to automatic dataloggers, and they are collating and analysing detailed consumption data to identify priorities to save water and reduce bills
3. New air curtains have been installed over the Palm Court entrance doors. Air curtains blow high velocity air to create a barrier between the indoor and outdoor environments. This reduces loss of warm air and therefore reduces demand for heating
4. The Palace hosted an event during London Climate Action Week in June to showcase our sustainability journey and to promote the projects supported by the Haringey Community Carbon Fund (HCCF). Attendees also heard from Haringey's Climate team about their work and the wider benefits of the HCCF. This fund has supported low energy lighting on the Terrace and secondary glazing in the old railway station.
5. The third HCCF project to install solar panels on the roof of the boat house is currently at the planning stage. The decision expected in early October and once permission is secured the timeline for the project will be confirmed.

6. Carbon Reduction Plan

6.1 A Carbon Reduction Plan has been drafted to show the progress made on the organisation's sustainability journey and sets out our target to reach Net Zero by 2041. The plan is included as Appendix 1 and details the current carbon emissions in relation to the baseline figure from 2019/20 and explains some of the carbon reduction activity during the reporting period.

- 6.2 The report also sets out four Carbon Reduction objectives and associated actions. To help increase our credibility with the public, clients and partners, and also when making award applications, the Board are asked to formally approve the Carbon Reduction Plan and Net Zero Target. Updates on progress will be reported in future meetings.

7. Legal Implications

The Council's Director of Legal and Governance has been consulted in the preparation of this report and has no comments.

8. Financial Implications

The Council's Chief Financial Officer has been consulted in the preparation of this report and notes the progress to date. Any financial benefits arising from these initiatives will be factored into future budget assumptions.

9. Use of Appendices

Appendix One: Carbon Reduction Plan

10. Background Papers - None.