

Greater London Authority External Review of Allocation and Impact Report 2024

July 18, 2024

This report was produced by Shades of Green using Shades of Green Methodology. On December 1, 2022, S&P Global acquired Shades of Green from CICERO

S&P Global has reviewed the Greater London Authority's ("GLA") Allocation and Impact Report 2023-4 ("Report"), which covers the period 1 April 2023 – 31 March 2024. We reviewed allocation against GLA's Green Financing Framework (dated November 2023, the "Framework") criteria, and impact metrics for relevance and transparency.

We consider that the allocations in the Report align with the Framework and that the Report utilizes relevant and sufficiently transparent impact metrics. Moreover, we consider the Report aligns with the core principles and recommendations contained in ICMA's Handbook – Harmonised Framework for Impact Reporting (June 2023).¹

Project allocation

Per the Framework, it would be utilised to capitalise the Green Finance Fund ("GFF"), an internally managed facility that would deploy the proceeds to eligible projects. The Framework states that, due to unfavourable bond market conditions, the financing of GFF would initially come from GLA's cash reserves. Upon favourable bond market conditions, GLA would launch the green bond program and use proceeds to refinance the initial commitments. Per the Report, the GLA has therefore not issued any bonds under the Framework, while GBP 100 million is from its cash reserves. Additionally, GLA has - through a loan with the UK Infrastructure Bank - raised GBP 190 million under the Framework to be deployed by the GFF.

According to the Report, GLA has approved allocations totalling GBP 218.5 million for eight eligible projects, across the Framework's three green project categories: renewable energy, energy efficiency, and clean transportation. GLA confirms that in practice, there were no deviations in the process for project evaluation and selection described in the Framework. Regarding these approved allocations, only one drawdown request has been submitted, totalling GBP 100 million and financed via the GLA's cash-reserves in the GFF. Allocation is reported on both a project-by-project and project-category level, and transparency is provided on the percentage of project costs covered. The eight approved projects are:

- One eligible project in the renewable energy category (installation of solar PV membranes on a stadium roof),
- Six eligible projects in the energy efficiency category (e.g., investments in LED lighting, electric heating and boiler upgrades, heat recovery ventilation, and installation of air source heat pumps), and
- One eligible project in the clean transportation category (investment in the London-wide expansion of Ultra Low Emission Zone (ULEZ)).

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¹ ICMA Handbook



GLA reports that some projects deliver measures that fall into multiple Framework green project categories. In those cases, GLA classified projects under the category to which there was the most cost allocation. GLA then provided a complementary breakdown of allocation by Framework green project category on both a project and portfolio basis. We welcome this transparency to manage the practical challenge of projects with measures relevant to multiple categories while providing clarity on allocation and allowing for greater comparability in future reporting. This approach was used for three projects where allocation and impact are classified under the energy efficiency project category, but also include renewable energy measures, namely solar PV. GLA confirmed that the financed energy efficiency measures would meet Framework expectations for improved building performance without factoring in the solar power generation benefits, which is positive.

In respect of category allocation, we consider the Report aligned with the Framework; for a more detailed review, please see Appendix 1.

Impact metrics

GLA reports impacts on both a project-by-project and project-category level. Impacts are reported on a forecasted / ex ante basis, however, per the Report, once projects are completed, project sponsors will be required to provide information on the actual / ex post impacts, and this will be included in future Reports. GLA has reported on both full impacts of financed projects as well as pro-rated impacts where it has only partially financed two projects. We welcome this approach given GLA's catalytic financing role but the importance of avoiding overstating contributions, as encouraged in the ICMA Handbook – Harmonised Framework for Impact Reporting.

We consider the Report utilises relevant metrics. All selected metrics are listed as core indicators in the ICMA Handbook – Harmonised Framework for Impact Reporting and provide good indication of impact. We welcome that all projects report on reduced/avoided emissions, and the further inclusion of each project's avoided emissions per GBP adds further value. The inclusion of project lifetimes and high-level social co-benefits is also positive.

We consider that overall, the Report provides sufficient high-level transparency on the methodologies / assumptions applied in calculating impacts. Each project applicant for GLA financing undertakes its own ex ante calculations, and there is therefore not uniformity of measurement or methodology in applicants' reporting. However, it is a strength that GLA solicits further assessment of reported impacts by London Treasury Limited (LTL) to support greater accuracy and consistency, with a commitment to follow up for clarification if LTL's calculations deviate by more than 10% from project applicants' reported ex ante figures. We welcome GLA's plans to provide further guidance to applicants on how to undertake ex post reporting to support consistent calculations of those figures across projects.

GLA's high-level discussion of the methodologies and assumptions used for reported reduced / avoided emissions figures is positive given there is no commonly used standard for calculation and a diversity of financed projects. GLA also provides good transparency on air pollutant reduction calculations, including a high-level description of the relevant applicant's traffic and air quality modelling approach and reference to an external expert's review of the applicant's analysis. We welcome GLA's inclusion of pro-rated figures, case study examples, and clarity on the use of forecasted / ex ante data with plans for future reporting on actual / ex post performance outcomes once available.

Where projects deliver measures that fall into multiple Framework green project categories, GLA has classified them based on the majority of cost allocation as described above. We welcome GLA's inclusion of clarifications on impacts in these cases, namely improvements in energy efficiency performance without factoring in renewable energy measure contributions to allow for transparency on whether energy efficiency Framework expectations have been met independently of solar PV additions. For a more detailed review, please see Appendix 1.



Terms

S&P Global provides a review of GLA's annual reporting based on documentation provided by GLA and information gathered during teleconferences and e-mail correspondence with GLA. GLA is solely responsible for providing accurate information. All financial aspects of the sustainable finance reporting - including the financial performance of the bond and the value of any investments in the bond - are outside of our scope, as are general governance issues such as corruption and misuse of funds. S&P Global does not validate nor certify the existence of investments and does not validate nor certify the climate effects of investments. Our objective has been to provide an assessment of the extent to which the bond has met the allocation and reporting criteria established in the Framework. The review is intended to inform GLA management, investors and other interested stakeholders and has been made based on the information provided to us. S&P Global cannot be held liable if estimates, findings, opinions or conclusions are incorrect. Our review does not follow verification or assurance standards and we can therefore not provide assurance that the information presented does not contain material discrepancies.



Appendix 1 - Review of eligible projects

Category	Description	Review against framework criteria	Impact Metrics	Relevance of metrics	Transparency considerations
Renewable Energy	Installation of solar PV membranes on a stadium roof	GLA informs us that lifecycle emissions for solar PV projects are assumed to be less than Framework criteria thresholds of 100gCO2e/kWh based on meta-analyses of this technology in the scientific literature	 Annual GHC emissions avoided (tCO₂eq) Annual renewable energy generation (MWh) 	Metrics are relevant, provide a good indication of impacts ✓ Avoided emissions are Annual renewable energy generation are listed as core indicato in the ICMA Handbook − Harmonised Framework for Impact Reporting ✓ Reporting on installed capacity could increase completeness of the metrics used − we not that the Framework lists this as an example indicator	Protocol guidance and Department for Environment Food & Rural Affairs (DEFRA) emission factors in calculating avoided emissions figures. Give GLA's commitment to provide guidance to applicants on how to undertake ex post reporting on a more standardised basis, we see anticipate greater transparency on calculation approaches in future impact reporting The inclusion of UK grid
Energy Efficiency	• 200 Buckingham Road (e.g., investments in insultation, electric	No discrepancies identified	• Annual energy savings	✓ Metrics are relevant, provide a good indication of impacts	 ✓ Impacts are forecasted / ex ant ✓ As above, some transparency of avoided emissions methodolog

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- heating and boiler upgrades)
- Neasden Depot (e.g., internal and external LED lighting, heat recovery ventilation, solar PV panels)
- London Underground (LED lighting in stations)
- TFL Road Network (LED lighting on/in roads, tunnels, subways, and street signs)
- Crystal Palace National Sports Centre (e.g., fabric improvements, LED lighting, installation of heat pumps)
- Corporate Estate
 Building Retrofit

 Programme (e.g.,
 removal of gas boilers
 and implementation of
 heat pumps, window
 replacements and
 draughtproofing)

- We note that the Framework does not contain any minimum improvement in energy efficiency for investments in existing buildings, though it contains an 'expectation' to improve buildings i) by at least one EPC band, ii) to increase energy efficiency score / reduce energy consumption by 30%, or iii) to get a 'good practice' Energy Utilisation Index
- Be aware that some energy efficiency investments also contain investments in renewable energy technologies, more specifically solar, which are eligible under the previous project category. GLA provides the allocation breakdown between energy efficiency and renewable energy measures falling under the overall energy efficiency category. We welcome this transparency to manage the challenge of projects that include measures across multiple Framework categories
- According to GLA, the financed energy efficiency improvements are forecasted to meet at least one

- (GWh)/ ✓ Annual GHG impact on building's energy usage or demand Impact of Handbook -Harmonised investments on building's **EPC** Reporting Annual GHG ✓ emissions avoided (tCO₂eq)
- emissions avoided and Annual energy savings are listed as core indicators in the ICMA Framework for Impact Impact on building's energy usage or demand and impact of investments on building's EPC are relevant given the 'expectations' set out in the eligibility criteria - note that these metrics are not reported for each project
- / assumptions, with greater transparency expected in future ex post impact reporting where GLA plans to share standardised calculation guidance with applicants
 As above, positive inclusion of
- additional grid and solar panel degradation assumptions, though consistent application is unclear Where projects contain both energy efficiency and renewable energy measures, GLA has provided performance figures for the improvement attributable solely to the energy efficiency measures. We welcome this transparency to allow investors to better compare energy efficiency outcomes to Framework expectations



of the performance expectations described in the Framework without the contribution of renewable energy investments

LED lighting is an example included in the Framework

Clean Transportation

Ultra Low Emissions Zone

Expansion of London's No discrepancies identified

Financing ultra-low emissions zones is an example included in the Framework

- Annual GHG ✓ emissions avoided (tCO_2eq)
- Percentage reductions in PM 2.5, NOx, NO₂
- provide a good indication of impact ✓ Metrics align with Framework's example indicators Annual GHG emissions avoided and Reduction of air pollutants are listed as 🗸

Metrics are relevant

- core indicators in the ICMA Handbook -Harmonised Framework for Impact Reporting
- Impacts are forecasted / ex ante
- As above, some transparency on avoided emissions methodology / assumptions, with greater transparency expected in future ex post impact reporting where GLA plans to share standardised calculation guidance with applicants Good transparency on air
 - pollutant reduction methodology / assumptions, including a highlevel description of the applicant's traffic and air quality modelling and reference to the peer review of the applicant's analysis undertaken by an expert at Imperial College. Reductions in air pollution are reported London-wide



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