

CIBSE response to the draft London Plan (2026) consultation

Rev 1 - submitted

15th October 2026

Executive summary

We welcome a number of proposals related to energy, carbon, the circular economy. Our recommendations are mostly to highlight areas which do not currently seem sufficiently addressed, or where monitoring by the GLA could help check outcomes and inform future policy.

- **Circular economy (GLE11):** The current wording almost takes demolition as starting point, and only requires an audit of how to make use of the materials arising from demolition. We appreciate that policy GHR3-A s requires assessing the potential for retaining existing structures, but 1) this should be referenced here, and 2) “retaining structures” is much weaker and may result in some cases with only minimal elements being kept, as opposed to a resource- and carbon-efficient retrofit & re-use approach. We strongly recommend this should be amended to encourage retention and re-use, with clear tests (/ criteria), for example similar to the Westminster Retrofit First policy’s sequential tests before demolition is allowed. CE policy objectives should also be reflected in the Plan’s monitoring KPI (Appendix A), including proportion of developments which involved substantial demolition, and reporting against key waste stream targets.
- **Energy efficiency (GHR1):** we strongly welcome the shift to absolute Energy Use Intensity /Space Heating Demand limits (kWh/m²/yr) applied consistently to new build, alongside space heating demand limits. We recommend considering the introduction of space cooling demand limits (e.g. for the office sector), EUI limits for refurbishment projects, and minimum renewable energy generation targets.
- **Low-carbon heat (GHR2):** we welcome the outcome-based, technology-neutral Low Carbon Heat Appraisal replacing a fixed presumption in favour of heat networks. However the effect of that policy may be limited by heat zoning regulations. While we understand the primacy of national regulations, we recommend reviewing options to complement the national regulations, in London, with carbon content of heat limits for networks, required decarbonisation trajectories for heat networks currently using fossil fuels, and/or the option for schemes not to connect if they can show lower carbon alternatives for their heat supply.
- **Whole life-cycle carbon (GHR3):** we strongly welcome the introduction of upfront embodied carbon targets, which capitalises on data and methodological advances across industry and local authorities, since the introduction of embodied carbon assessments in the last revision of the Plan. We recommend stronger pre-demolition tests, and reviewing the possibility to introduce upfront carbon limits on refurbishments.
- **With the removal of carbon offset requirements, and notwithstanding the wide variety of impact in how these funds have been used across Boroughs, we do note that alternative sources of funding will need to be found, for energy efficiency and decarbonisation projects led by local authorities.**

- Overheating (GHR4) and housing design (HN8): we welcome more comprehensive planning-stage overheating assessment (TM52/TM59/TM49), taking account of wider site impacts beyond the building itself. HN8 narrows the justification test for single-aspect dwellings compared with current Policy D6; we recommend against this loosening, given the overheating implications.
- Air quality (GHR10): we welcome aspiration to align with WHO but have made a number of recommendations for more effective policy (including targets, reduction at source, exposure reduction and mitigation), and linking across several areas of the Plan.

Introduction

1. Please tell us in what capacity you are responding?

Representing a stakeholder or organisation (CIBSE).

2. Which of the following most closely describes the sector you or your organisation belongs to?

Environment, climate and heritage organisations.

3. Do you consider that, in overall terms, the draft London Plan complies with the relevant legal and procedural requirements applicable to its preparation?

No comment

If you are seeking any modification to the plan, please confirm whether you would wish to appear at the Examination in Public, if requested to do so by the Inspector.

Yes, we would be happy to appear in the Examination in Public

If you have any general comments about any of the chapters in this policy, please record them here.

See the policy-by-policy responses in this document.

Chapter 2: Making best use of land and achieving good growth

MBUL1: Spatial Strategy

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No comment.

MBUL2: Optimising the use of land and site capacity

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No comment.

MBUL3: Tall buildings

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

CIBSE response

We welcome new criterion B(4)(ix), which requires tall buildings to avoid a significant detrimental effect on solar energy generation on adjoining buildings. In addition, and consistent with our 2017 recommendation, we recommend that the general reporting duties in GHR1 (energy) and GHR3 (embodied carbon) should include reporting of building height and floor space in NIA (in addition to floor space in GIA), so that it would be possible to analyse in the future any trends (or lack of!) in the energy use and upfront carbon, and adjust policy accordingly if needed.

MBUL4: Utilities – capacity, connectivity, and resilience

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

CIBSE response

Neither yes nor no.

Datacentres

CIBSE's response to the 2025 call for evidence highlighted industry feedback that grid capacity constraints were affecting the deliverability of schemes in some areas of London; this was confirmed by the London Assembly "Gridlocked" report [<https://www.london.gov.uk/about-us/londonassembly/meetings/documents/s120097/05a.%20Appendix%201%20-%20Gridlocked%20-%20How%20Planning%20Can%20Ease%20Londons%20Electricity%20Constraints%20-%20Output%20repo.pdf>]. The proposed MBUL4, together with GLE3 (Data centres), addresses this, at least when it comes to the main issue documented in "Gridlocked" i.e. data centre demand, not development generally, being the principal driver of grid capacity conflicts affecting housing delivery in Hillingdon, Hounslow and Ealing.

We also welcome that Table 2.3 gives applicants specific, rather than generic, direction: it identifies which body to engage with by utility type and trigger condition (the DNO, National Grid or NESO for electricity, depending on scale and location), and points to named information sources (DNO network capacity plans, Local Area Energy Plans) rather than leaving applicants to establish this themselves.

We would note that the proactive, capacity-protective test in GLE3 A(1) is specific to, or places emphasis on, data centres. This is understandable as they are now Critical National Infrastructure.

Should another grid-intensive use begin competing for constrained capacity in the same way, MBUL4's general Table 2.3 engagement duty may not be sufficient. Given this is not currently a documented problem beyond data centres, we raise it as a point to keep under review rather than a recommendation for immediate change.

Water

Policy MBUL4 retains a static residential standard of 105 litres per person per day. This should be a starting point, not London's ambition for the whole Plan period. We recommend a clear trajectory to 90 litres per person per day by 2030 & 80 litres per person per day by 2035 for major residential development, supported by a fittings-first approach and appropriate water reuse. This is consistent with London's serious water-stress context & the direction of travel identified by the Future Homes Hub's Water Ready work, which proposes a staged roadmap and identifies 80 litres per person per day as the higher-performance level for seriously water-stressed areas by 2035. It also highlights the importance of communal systems, adoption, maintenance and workforce competence.

For non-residential development, BREEAM Wat 01 should remain a minimum benchmark but should not be treated as a substitute for a site-specific water balance & reuse assessment. The policy should apply an equivalent evidence requirement to high-demand commercial, industrial & institutional uses.

Policy MBUL4 refers only to fixtures & fittings "preferably incorporating reuse of grey water at least externally". A fittings-first approach remains important. Reuse should complement efficient fixtures & appliances, not compensate for avoidable demand. However, more ambitious standards will increasingly need a combination of efficiency & reuse. The MBUL4 wording is advisory and does not establish when reuse must be assessed, how an applicant should demonstrate feasibility, which sources and end uses should be considered, or how a system will be operated throughout its life. The draft also represents a loss of clarity compared with Policy SI5 of the adopted London Plan 2021. SI5 expressly requires development to incorporate water-saving & recycling measures, including retrofitting, to achieve lower consumption & maximise futureproofing. The policy should restore the adopted Plan's reference to retrofitting: change-of-use & major-refurbishment proposals should assess practical reuse opportunities. The policy should remain technology-neutral & scale-appropriate: the correct solution will depend on source water, intended end use, development type, available collection area, occupancy profile, treatment complexity & the arrangements for long-term management. We therefore recommend an explicit requirement for major development to submit a Water Efficiency & Reuse Strategy & where a system is proposed, a Water Reuse Management Plan. Major development should incorporate an appropriate reuse system unless the strategy demonstrates that this would not be technically, environmentally or economically appropriate. The assessment should cover Rainwater Harvesting, Greywater Recycling, Blackwater Recycling & communal or district-scale options. Ideally, it should also identify a competent Responsible Person & secure commissioning, operation, maintenance, monitoring, handover & failure arrangements.

Supporting text or guidance should refer to the current editions of BS EN 16941-1 for systems using rainwater & BS EN 16941-2 for systems using treated greywater. BS 8680 should be referenced where a building Water Safety Plan is appropriate.

MBUL5: Sustainable transport to enable London's growth

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No comment.

MBUL6: High quality design for a growing, changing city

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No comment.

MBUL7: London's Heritage

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

CIBSE response

We welcome MBUL7-G, which supports energy-efficiency improvements, decarbonisation of energy sources, renewable microgeneration and overheating-mitigation measures on heritage assets, provided these achieve an appropriate balance with conserving significance.

MBUL8: Inclusive design

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No comment.

MBUL9: Healthy Streets and Public Realm

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

CIBSE response

We welcome that Part B(7) explicitly requires development to minimise impermeability and improve sustainable drainage and biodiverse planting as part of the Healthy Streets Approach, and that Part C(3)–(4) includes shade, shelter and free drinking water; these support the urban heat island and air quality objectives of GHR4 and GHR10. We recommend explicit cross-reference to wind and microclimate standards (such as the Lawson Wind Comfort Criteria, already referenced elsewhere in the draft under HN8) to ensure comfort in public realm design is assessed consistently.

MBUL10: Security and safety

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No comment.

Chapter 3: Delivering the homes and neighbourhoods (HN) Londoners need

HN1: Increasing London's housing stock

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No comment.

HN2: Protecting and reshaping housing

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

CIBSE response

We welcome that HN2-C requires a robust assessment of the benefits and disbenefits of alternative options before demolition and replacement of affordable homes, weighed against wider social and environmental impacts. This could be made more specific (either here or in GHR3), requiring a pre-redevelopment audit for homes, not just for referable applications.

HN3: Delivering affordable housing

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No comment.

HN4: Gypsy and Traveller accommodation

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No comment.

HN5: Managing specialist accommodation

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No comment.

HN6: Built to rent

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No comment.

HN7: Housing size mix

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No comment.

HN8: Housing design

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

CIBSE response

The draft Plan (HN8, Part A(1)) requires development to "*maximise the provision of dual aspect dwellings and seek to minimise the provision of single aspect dwellings*", with single-aspect dwellings permitted provided it is demonstrated that they will have adequate passive ventilation, daylight, privacy, and avoid overheating. By comparison, the current Plan (Policy D6) supports dual-aspect dwellings and states that developments should *normally avoid single-aspect dwellings*, subject to a justification test permitting them only where they represent "*the most appropriate design solution*" for the site.

This change could make single-aspect layouts easier to justify on viability or site-capacity grounds, at a time when the draft's optimisation policy (MBUL2) places more emphasis on meeting minimum densities. Single-aspect dwellings are of particular concern for overheating risk (addressed in GHR4) since they cannot rely on cross-ventilation, as well as other wellbeing issues such as natural light, views and ventilation. We recommend the wording be tightened to retain the requirement that alternative, dual-aspect layouts have genuinely been considered and their provision maximised, not simply that performance criteria for the proposed single-aspect option have been met.

We support the retention of the minimum 2.4m floor-to-ceiling height standard (Part B(2)), and its recognised role (paragraph 3.99) in optimising daylight and sunlight. We recommend an *encouragement* to 2.8m, which is better practice for the installation (now or in the future) of ceiling fans for overheating risk mitigation.

HN9: Accessible housing

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No comment.

HN10: Burial space

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No comment.

Chapter 4: Growing London's economy

GLE1: Sufficient and appropriate employment space

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No comment.

GLE2: Supply of industrial land

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No comment.

GLE3: Data centres

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

CIBSE response

See our response to MBUL4

We agree that datacentre should be subject to local plan making, with consideration of criteria including grid capacity, water capacity, and potential for heat rejection recovery. Demand side power management and power embedded generation should also be considered. Furthermore, the draft policy refers to local authorities having to review water capacity; we recommend this is also carried out at the Greater London or wider regional scale, to ensure consistency, limit repetitive work, and reflect the fact that water is a strategic issue at the regional level in South England.

Data-centre proposals should submit an operational water balance & water-resilience assessment. This should report annual & peak demand; Water Usage Effectiveness; potable & non-potable sources; water reused or recycled within the facility; wastewater quantity & quality; drought & heatwave operation; & cumulative effects with other data centres & planned growth. Proposals should minimise the use of potable water for cooling & prioritise closed-loop systems & appropriate non-potable or reused sources, including harvested rainwater, treated greywater or recycled wastewater, where this achieves a sound overall water, energy, carbon & environmental outcome.

The current monitored KPIs (Annex A, table A1) are aggregate across all datacentre developments, and do not include energy use nor water use. The Government-hosted 2025 report on water use in data centres & AI

(https://assets.publishing.service.gov.uk/media/688cb407dc6688ed50878367/Water_use_in_data_centre_and_AI_report.pdf) identifies the present lack of reliable water-use data, and recommends location-based reporting that distinguishes potable & non-potable sources, & supports preferential use of non-potable water. We strongly recommend that monitoring and public reporting of datacentres should be at the project level (even if anonymous, if needed), and include:

- Total annual energy use, broken down into fuels. It is apparent that a number of planned energy centres have provision for on-site fossil-fuel based electricity generation, and that this may be relied upon much more than for truly unavoidable back-up. This must be monitored by local authorities and the GLA, to assess their true impact and take provisions accordingly if needed.
- Targeted peak & annual achieved PUE
- Total peak & annual water use
- Targeted & annual Water Use Effectiveness (WUE)

- Total peak & annual Infrastructure peak & annual system use (IUE)
- Capacity planning (IT power and cooling infrastructures)
- Maximum demand values.

We also recommend that the energy use, embodied carbon and overheating risk implications of datacentres be explicitly taken into account in related GHR policies (just as the potential for waste heat to feed into heat networks is already mentioned in GHR2).

GLE4: Night-time economy

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No comment.

GLE5: Culture and creative industries

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No comment.

GLE6: Visitor infrastructure

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No comment.

GLE7: Affordable workspace

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No comment.

GLE8: Access to employment and skills

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No comment.

GLE9: Aviation

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No comment.

GLE10: Safeguarded wharves

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No comment.

GLE11: Circular economy

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

CIBSE response

We welcome the introduction of Circular Economy statement including pre-redevelopment and pre-demolition audits for referable development (Part B(1)), the strategic waste stream targets in Table 4.2, and the explicit circular economy design principles at paragraph 4.95 (building in layers, designing for disassembly, and others) — these align with our recommendations and are a strengthening of the current Plan's Policy SI7.

We also welcome the requirement (paragraph 4.97) that CE statements should be iterative, produced at pre-planning, and take opportunities from multi-phase developments, and that metrics be shared consistently with the Whole Life-Cycle Carbon Assessment, addressing a gap CIBSE identified in 2025.

However:

- **The current wording of B-1 does not provide a strong framework to encourage retention and examine alternatives to demolition: it almost takes demolition as starting point, with the audit focused on how to make use of the materials arising from demolition.** We appreciate that policy GHR3-A does require assessing the potential for retaining existing structures, but 1) this should be referenced here, and 2) “retaining structures” is much weaker and may result in some cases with only minimal elements being kept, as opposed to a resource- and carbon-efficient retrofit & re-use approach. We strongly recommend this should be amended to encourage retention and re-use, with clear tests (/ criteria), for example similar to the Westminster Retrofit First policy [<https://www.westminster.gov.uk/sites/default/files/media/documents/retrofit-first-guide.pdf>] under which a sequential test has to be met for demolition to be acceptable in buildings over 1 storey where over 50% of the GIA is proposed to be demolished (structural infeasibility, incompatible use / access / statutory requirements, lower whole-life carbon than retention, or public benefits).
- the Circular Economy Statement requirement applies only to referable applications; given that the stated aim of the policy is for all developments to promote circular economy outcomes, we recommend the GLA consider extending this to **major development**, and to provide more guidance on how other developments are expected to demonstrate circular economy principles, given their cumulative significance across London (beyond the statement in paragraph 4.92 “*All development proposals should be able to demonstrate some consideration of how they can advance circular economy objectives*”).
- There is currently no **monitoring KPI** proposed related to the circular economy (Appendix A, Table A1). This must be modified, to include the proportion of developments which included demolition (e.g. of at least 50% GIA), and reporting against the key targets of Table 4.2, at project level and on aggregate across developments. We assume this is the intent, from the wording of B-5, but is not reflected in current Table A1.
- See also our comments on GHR3

GLE12: Waste

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

CIBSE response

We welcome that GLE12-F(4) requires new or expanded waste management sites to achieve “*at least a no net worsening of carbon and air quality outcomes*”. We recommend the policy or its

supporting text make it explicit that combustion/energy-from-waste facilities are covered by Part F(4), and that carbon and air quality impacts under this test be **assessed on the basis of actual emissions arising on site**, not on accounting conventions or allocation factors that attribute some or all of those emissions to other sectors. For this purpose, for carbon emissions, we recommend that the carbon emission factor for waste should be taken from UK Energy from Waste Statistics , published by Tolvik Consulting, using the average fossil CO2 emitted per tonne, as is done in the UK NZCBS.

We also recommend the policy be clear that heat recovered from waste combustion should not be classified as renewable energy, and that where a new or expanded waste site proposes to generate and supply waste heat (as anticipated in paragraph 4.109, cross-referencing GHR2), the combustion plant itself should be subject to the same air-quality and carbon scrutiny as other combustion plant under GHR1/GHR10, not treated more favourably because the fuel is waste.

GLE13: Aggregates and mineral resources

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No comment.

Chapter 5: Creating a greener, resilient and healthy (GHR) city

GHR1: Energy efficiency

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

CIBSE response

We strongly welcome that GHR1 proposes a change from Part L targets to Energy Use Intensity and Space Heating Demand (SHD) targets. This has been recommended by CIBSE for a number of years; SHD has a track record of supporting the delivery of low energy buildings, and EUI provides a clear, measurable reference to compare across the years and with actual performance. We also welcome the clear statements that developments should minimise peak demand, as well as annual energy use – options to incorporate this in monitoring KPIs should be considered.

We do however have some recommendations to strengthen the policy and its implementation:

Under the current proposals, **refurbishments** are subject to a minimise-and-report duty rather than numerical limits, with currently a non-binding statement (“Major refurbishments and developments that do not fall into these use classes should minimise and report EUI and SHD levels (with reference to relevant industry benchmarks)”). We recommend addressing this by introducing refurbishment-specific limits, particularly now that the NZCBS offers an approach and possible EUI limits, and given the importance of the existing stock to London's decarbonisation trajectory.

While renewable energy is currently encouraged, we recommend considering the introduction of specific **targets for renewable energy generation**, for example using the approach in the NZCBS and other local authorities i.e.:

- Varying by sector and/or number of storeys
- Defined in terms of minimum kWh generated per year, per m2 of building footprint
- With allowances for unavoidable constraints such as local grid capacity, overshadowing, competing roof space uses; and for existing buildings, additional constraints such as heritage, structural or access issues

We expect that at least the same levels of **reporting and monitoring** will be retained as currently i.e. reporting of energy use at project level and in aggregate – this should be reflected in the monitoring KPIs in Table A1. We welcome the retained requirement to monitor and report in-use energy demand for at least five years post-construction (Part D). We welcome recent annual monitoring reports which include much more detail than in early years; we understand that in-use data is not yet available due to the delays between publication of the previous Plan and projects coming into use; the Be Seen platform continues to have great potential to inform practice and policy.

It is useful to have both **“baseline” and “aspirational” limits**, particularly given the timeline of the London Plan, allowing the emphasis to gradually shift and more schemes to be encouraged over time towards the aspirational targets. We also welcome the alignment of many of the aspirational limits with the UK Net Zero Carbon Buildings Standard (NZCBS) limits for 2040 onwards. We do recommend differentiating limits for different types of industrial buildings (e.g. datacentres, whose limit should be expressed in PUE; unconditioned warehouses; conditioned warehouses etc). In the office sector where such an approach is already well established, energy limits which take account of intensity of use (e.g. NABERS ratings) could be available as alternatives to EUIs (e.g. the NZCBS offers offices the options to use NABERS star ratings instead of EUI limits).

At least for sectors such as offices, retail and datacentres where space cooling is at least as or more significant than space heating, we recommend introducing a **Space Cooling Demand (SCD)** limit alongside the SHD one. Precedent exists for this: Passivhaus, for example, sets an SCD limit (typically

15 kWh/m²/yr for new build, alongside an equivalent allowance for dehumidification in warmer or more humid climates) on the same basis as its SHD limit, rather than treating cooling as a secondary or residual consideration. The logic of space heating demand limits is that it is a large driver of energy use AND can be directly influenced by designers – this also applies to SCD, which would provide a metric directly implementing the first steps of the cooling hierarchy.

GHR2: Low-cost low-carbon heat

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

CIBSE response

We strongly welcome the move towards a technology-neutral, outcomes-based approach (both on carbon and costs) to heat. CIBSE previously expressed concern about the blanket support to heat networks without linking that to specific low carbon and cost requirements.

In practice however, the policy currently is likely to have limited effect in areas where heat zones are in place, where schemes may be required by regulations to connect. CIBSE have expressed concerns that zoning regulations may not sufficiently require heat networks to deliver carbon emissions savings compared to alternatives; we therefore think there is a risk of higher emissions than necessary, if the London Plan relies solely on the national heat network zoning and regulatory regime. While we understand the primacy of national regulations, we strongly recommend that the London Plan be strengthened so that heat networks in London be expected to demonstrate low carbon content of heat outcomes and/or that schemes in a heat zone be allowed not to connect, if they can demonstrate lower cost and carbon outcomes with other heating solutions. For example, the UK Net Zero Carbon Buildings Standard includes the following requirements:

- For new networks: no use of fossil fuels AND a maximum carbon content of heat equivalent to that from an average on-site air source heat pump;
- For existing networks: if the network uses fossil fuels, a 2030 phase-out commitment; AND a maximum carbon content of heat equivalent to that from a network with CP1-aligned losses and an average source heat pump.

Carbon content of heat should reflect the true carbon impact of the fuel source and technology, calculated without artificial factors or adjustments intended to artificially advantage or disadvantage a particular technology or fuel source. In particular:

- In the case of CHP, the carbon emissions associated with electricity avoided (through use of CHP-generated electricity) should be those of the grid, NOT a “marginal” factor
- As noted under GLE12: where heat proposed for use in a heat network originates from an energy-from-waste (= combustion-based) facility, the carbon emissions associated with the waste fuel should reflect actual emissions e.g. taken from UK Energy from Waste Statistics, published by Tolvik Consulting, using the average fossil CO₂ emitted per tonne, as is done in the UK NZCBS. We recommend GHR2's supporting guidance cross-refer to GLE12 and GLE11 on this point, and confirm that waste-derived heat is not treated as renewable or assumed to be low-carbon by default.

GHR3: Whole life-cycle carbon

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

CIBSE response

We strongly welcome that GHR3 upfront embodied carbon limits. This capitalises on data and methodological advances across industry and local authorities, since the introduction of embodied carbon assessments in the last revision of the Plan.

Similar to policy GHR1, we recommend considering the introduction of limits for refurbishments, for example using the NZCBS approach.

Similar to policy GHR1, we recommend more differentiated limits between sectors, differentiating offices, retail, datacentres, logistics and different types of warehouses rather than having a single Class E category.

We welcome Policy GHR3-A, which requires assessing the potential for retaining existing structures, but, as noted under GLE11, “retaining structures” is quite broad wording which may result in some cases with only minimal elements being kept, as opposed to a resource- and carbon-efficient retrofit & re-use approach. Furthermore, the current requirements for the audit could be strengthened to avoid them being a purely procedural requirement with limited impact. As noted under GLE11, this could be significantly strengthened with a clear sequential test, for example similar to Westminster’s Retrofit First policy.

In addition, policy GHR3-A should apply beyond just referable applications, at least to include major developments.

GHR4: Heat risk

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

CIBSE response

We strongly welcome that GHR4 retains and strengthens overheating risk assessments (through TM52 and TM59), and expands it to include the wider site, with attention to green / blue infrastructure, materials and surroundings, and future climates (through TM49), and Good Homes Alliance overheating risk assessments used at the pre-application stages.

We recommend that the guidance should mention significant heat rejection sources, such as data centres, among the considerations to take into account within the surroundings of developments.

As set out in our response to HN8 (Housing design) above, the narrower justification test for single-aspect dwellings is a change which we recommend should be reconsidered: single-aspect layouts are more vulnerable to overheating because they cannot achieve cross-ventilation, so GHR4's effectiveness depends in part on HN8 continuing to limit single-aspect dwellings robustly. Please also see HN8 on recommended ceiling heights for the installation of ceiling fans.

We also agree with the statements that in many cases, cooling may not be avoidable, now or in the future. CIBSE are currently working on guidance about a hierarchy of cooling systems, and recommendations for active cooling in low energy buildings; we would be happy to discuss this with the GLA, if this could be taken into account in London Plan guidance.

GHR5: Flood risk and drainage

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

CIBSE response

We welcome that GHR5 sets a clearer drainage hierarchy (Box GHR5) and a specific greenfield run-off metric (Qbar or 3 l/s/ha, whichever is higher) for referable development, addressing the lack of specific criteria CIBSE noted in 2017.

We also welcome the recognition (paragraph 5.56) that a blue roof or minimal landscaping alterations can often meet drainage requirements if incorporated early in design, which supports the holistic, green-infrastructure-led approach CIBSE has consistently recommended (see also our response to GHR6 and GHR7 below).

GHR6: Trees, biodiversity and geodiversity

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

CIBSE response

We welcome that GHR6 sets planning and development-management requirements for tree retention, replacement and new planting directly in policy (Parts A–C), rather than leaving this to supporting text, and that plan-making authorities are required to identify areas of deficiency in access to nature. As in previous consultations, we recommend that developments should include plans for the caring of trees, especially in early years until they are established.

As previously recommended, we recommend that this policy be incorporated into monitoring KPIs e.g. in terms of new and total tree canopy cover.

GHR7: Green infrastructure and Urban Greening Factor

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

CIBSE response

We support in principle the concept of Urban Greening Factor and minimum target scores, with a clear worked calculation methodology (paragraph 5.82) and submitted calculations (paragraph 5.84) that should support consistent monitoring. We cannot comment on the specific target scores and details of the methodology.

We also welcome the explicit statement (paragraph 5.86) that UGF and Biodiversity Net Gain are complementary and should be assessed and reported separately.

As previously recommended, we recommend that this policy be incorporated into monitoring KPIs e.g. monitoring of delivered Urban Greening, both at development level against planning conditions, and in aggregate across developments.

Current Urban Greening Factor (UGF) targets are just “weighted” area-based compliance support tools with a biodiversity focus but no strategic integration into air quality plans and the AQP planning guidance is only large development focussed – see above. An extension in the categories (Table A1.1) in the latter could promote the uptake of PBD for improved air quality across the wider population and generate a better alignment with the transport-dominated ULEZ/LEZ policies, noting non-transport related pollution is now of a greater concern following the success of the transport-related policies.

Our recommendation is that the Plan should provide incentives to switch to a performance-based design that updates surface materiality and area assignments to actively improve local air quality alongside biodiversity and other co-benefits, such as moderating the climate around a building using GI. A new CIBSE Guide “CFD Modelling of Urban Vegetation Systems” published by [UKUEQ](#) is due Q1/2 2027 – latest copy available on request. This guide supports inclusion of advanced GI calculations into the traditional air quality assessments and could, ultimately, form a basis for planning requirements alongside similar documentation, e.g. CoL [wind](#) and [thermal comfort](#) planning guidelines but with an air quality focus.

GHR8: Accessible green space

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

CIBSE response

We welcome that GHR8 introduces a more structured framework for identifying areas of deficiency (Table 5.2, using standardised walkable and strategic proximity criteria) and requires ring-fenced developer contributions where on-site provision cannot meet local standards (Part D). We have no further substantive comment on this policy beyond the green-infrastructure and health points made in our response to GHR6 and GHR7 above.

GHR9: Clean and healthy waterways

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No comment.

GHR10: Air quality

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

CIBSE response

Our response has been developed through engagement with our expert Air Quality group.

We strongly welcome that GHR10 explicitly has as its policy aim to "work towards meeting the World Health Organization's (WHO's) air-quality guidelines", and that the supporting text (paragraph 5.107) defines poor air quality by reference to the WHO's fourth interim PM2.5 guideline (10µg/m³) to be achieved by 2030. This is a substantive strengthening of ambition compared with the current Plan's Policy SI1, and addresses key recommendation from CIBSE in previous consultations.

We also welcome the Non-Road Mobile Machinery Low Emission Zone requirements (Box GHR10), which introduce a clear, staged tightening of construction plant emission standards — Stage IV from 2025, Stage V from 2030, zero-emission from 2040 — addressing CIBSE's 2017 recommendation for stronger controls on construction-phase emissions and giving the industry a clear, dated trajectory to plan against.

We welcome that paragraph 5.118 confirms offsetting payments for air quality should only be considered where on-site mitigation has been explored, exhausted and found insufficient, consistent with previous CIBSE recommendations. We also recommend, as previously, that this should be limited to known, established measures, given the difficulty of verifying delivered benefits, particularly for measures such as urban tree planting.

Wood Burning

There is no mention within GHR10 about Domestic Solid Fuel Burning (or home heating in general). Domestic Solid Fuel burning, particularly wood, is a key cause of air pollution and has significant impacts on human health and the environment, both through emissions to ambient air and within homes. London specific evidence includes work undertaken on health effects of wood burning through the London Woodburning project ([Link 1](#), [Link 2](#), & [Link 3](#)).

It is estimated that around 4,000 premature deaths occur each year in London due to long-term exposure to air pollution, of which about 284 are attributable to domestic wood burning.

Our recommendation is that planned homes should heavily disincentivise the installation of woodburning, with a ban on the installation of solid fuel burners in new builds and a requirement for an air quality assessment to cover any proposals for solid fuel burning.

Air Quality and Inequalities

Although paragraph 5.109 mentions vulnerability to air pollution, our view is that one of the main aims of policy GHR10 should be to reduce inequalities regarding exposure to air pollution. Although air pollution can be harmful to anyone, some people are more affected as a result of where they live, the concentration of air pollution they are exposed to in their day-to-day lives, or their inherent susceptibility to health problems caused by air pollution. Those who are more susceptible include older people, children, those with pre-existing cardiovascular or respiratory disease, pregnant women, communities in areas of deprivation, higher pollution and low-income communities ([LAQM Policy Guidance PG22](#)), and these disparities can affect people throughout their lives, from the prenatal stage through to old age. Work undertaken in London on air pollution and disparities can be found at <https://www.london.gov.uk/programmes-strategies/environment-and-climate-change/environment-and-climate-change-publications/air-pollution-and-inequalities-london-update-2023>.

Generally, more air pollution sources and higher pollutant concentrations are found in more socially disadvantaged areas, consequently air pollution tends to cause most harm to people in socially deprived groups. For those on low incomes, problems are compounded as they are more likely to have existing medical conditions, they are more likely to live in areas with poorer outdoor and indoor environments and have less access to jobs, healthy food, decent housing and green spaces, which all contribute to poorer health <https://www.gov.uk/government/publications/health-matters-air-pollution/health-matters-air-pollution>.

Our recommendation is that GHR10 more explicitly includes reference to reducing inequalities, prioritising mitigation, which is likely to improve emissions for vulnerable communities, and ensuring that any particularly vulnerable populations to air quality are identified within air quality assessments (such as, but not limited to, care homes, hospitals, schools etc). In addition, the policy could define populations which are more vulnerable to air pollution, ensuring a consistent approach across London.

Need to strengthen link between landscape architects, urban design and master planning

The aims to reduce exposure and assess air pollution as neighbourhood wide impact are welcomed. It is noted that paragraph 2.84 expressly cross-refers to GHR10 for concentration and exposure design. However, moving into policy wording, rather than supportive text, will have more impact in planning decisions. There is a strong need to legislate effective collaboration between master planners and environmental scientists, by providing a comprehensive framework to legally bind environmental science into the early spatial planning stages. Rather than treating environmental assessments as a late-stage box-checking exercise. Legislation should mandate an integrated, co-designed planning process.

For example, in Wales, a Green Infrastructure Statement needs to be submitted with all planning applications. To help ensure net gain for biodiversity and raising profile for green infrastructure and hopefully evoking collaboration between disciplines at an early stage.

<https://planning.eryri.gov.wales/advice-and-guidance/biodiversity/green-infrastructure/>

Our recommendation is that there is a legislative requirement for provision of environmental baseline reporting before any master planning, this would help inform and influence early design for the benefit of the environment.

Further examples include:

- The University of Birmingham Urban Design Charter which consolidates knowledge on the importance of early design influence for better air quality https://pure-oai.bham.ac.uk/ws/portalfiles/portal/253353097/WM-Air_Design_Charter.pdf
- The Rugby Air Quality Supplementary Planning Document (SPD), which lists a requirement to liaise with landscape architects as part of AQA https://www.rugby.gov.uk/documents/20124/6586944/Air_Quality_SPD_July_2021_.pdf/b923f371-525d-0ae2-ad1c-5ebb12af62d8?t=1750865764090 refers to Woodland Trust guidance <https://www.woodlandtrust.org.uk/publications/2025/01/urban-trees-and-forests-position-statement/> ; <https://www.woodlandtrust.org.uk/publications/2019/01/residential-developments-and-trees/>
- The importance of green infrastructure consideration as part of Health Impact Assessments (HIAs) <https://uk.greenblue.com/green-infrastructure-part-health-impact-assessments/>

Addressing critical policy disconnect between Green Infrastructure (GI) and air quality

There is a critical policy disconnect between green infrastructure and air quality. Para 5.113 includes the wording “landscaping” but the way that GI can improve air quality needs to be included with greater emphasis. The current Draft Plan fails to mention the potential benefits of well-designed GI on air quality in any detail and therefore does not incentivise GI incorporation into developments for the purposes of improving air quality although it does for other issues such as using Urban Green Factor (UGF) to improve biodiversity.

This is perhaps no surprise as the air quality chapter in the London Environmental Strategy omits benefits of GI even though some benefits *are* highlighted in the following chapter on GI. It fails to integrate GI into air quality strategies along with additional co-benefits, such as water management and many other areas captured in TfL’s Natural Capital Report. Well-communicated connections need to be made to generate the “real” combined value of GI and help justify its uptake. Some of this value has been captured in planning and guidance documentation. Note Mayor of London’s Green Infrastructure and Biodiversity Plan states “TfL’s green infrastructure helps improve air quality, yielding £65m in benefits to Londoners”. Mayor of London’s “Using green infrastructure to protect people from air pollution” provides good guidance linking GI to air quality but this is not captured in GHR10.

The AQN London Plan Guidance has an emissions focus (Para 5.120) and the AQP London Plan Guidance has larger developments focus within Para 5.120. Air pollution mitigation using GI, though, is most effective when applied locally, e.g. using dispersion to increase source-receptor distance allowing more dilution / mixing before being breathed in, or through optimising deposition, e.g. deposition rate by species, or by using well-tested design methods, e.g. Tiny Urban Forests, to improve air quality. Multi-benefits can accrue, e.g. squeezing “tiny urban forests” into tight city spaces is a far more effective hyper-local strategy for urban cooling and localized pollutant reduction. It is not clear if or how the use of GI could be used as part of an offsetting payment reduction incentivisation scheme, such as describe in Table 5.1 of AQN London Plan Guidance, whereas strengthening of the Draft Plan in this area could derive great value over many GI co-benefits.

Currently there is a siloed approach where GI is not discussed within air quality chapters which need addressing. Our recommendation is that the GHR10 policy should *explicitly* address and strengthen how GI can be structurally utilized for improving air quality such as briefly mentioned in AQP London Plan Guidance Para 3.2.7. Please also see our comments on policy GHR7, with recommendations on how to integrate air quality considerations within the Urban Greening Factor.

Generator Compliance and Emissions Hierarchy

The routine operating period for backup generators (i.e. for testing/maintenance) is short-term (e.g. an hour test per month). EU Stage V engines will typically require abatement such as SCR, to meet the NO_x emission standards. Therefore, there is a potential issue associated with SCR cold-start and the impact of reducing NO_x emissions during routine operation of backup generators, therefore limiting backup generators to EU Stage V engines may not be the most effective solution.

Alternatively, The City of London (CoL) Air Quality SPD ([Air Quality SPD](#)) incorporates an Emergency Power Supply Hierarchy, which seeks to minimise pollutant emissions from standby power systems and promotes the use of alternatives to diesel fuelled generators where possible. This encourages consideration of a wider range of solutions to support with a development's backup power and resilience needs, promoting the choice of non-combustion technologies, which has positive implications for local air quality.

It is therefore recommended that GHR10 follows similar principles to the Emergency Power Supply Hierarchy outlined within the CoL Air Quality SPD for backup power and resilience.

Improving PM_{2.5} Information, Monitoring, and Modelling

In the draft London Plan poor air quality is defined in relation to the national air quality objectives for NO₂ and PM₁₀ and the fourth interim WHO guideline for PM_{2.5} (10 µg/m³). For NO₂, there are over 100 automatic monitors, supplemented by over 2000 diffusion tubes in London, which help determine the areas in which the air quality objective is exceeded. In contrast, for PM_{2.5} there are approximately 50 automatic monitors.

The London Atmospheric Emissions Inventory (LAEI) provides maps of modelled concentrations of NO₂, PM₁₀ and PM_{2.5}. The LAEI 2019 (released in 2023) provided concentration maps for 2019 and projections for 2025 and 2030. The LAEI 2022 (released in 2025) was updated for a 2022 base year but did not provide updated maps for 2025 and 2030; the only maps available for 2025 are therefore based on out-of-date data.

As exceedences of the WHO PM_{2.5} guideline are more widespread than exceedences of the NO₂ and PM₁₀ objectives, to help determine whether new developments are in areas of poor air quality, an expansion of the PM_{2.5} monitoring network should be considered, combined with more frequent updates of concentration maps. References: London Air Quality Dashboard ; LAEI 2019 ; LAEI 2022.

Our recommendation is to improve and extend the current PM_{2.5} monitoring network, in order to determine whether proposed developments are in areas of poor air quality, and therefore to mitigate harm.

Quantifying Mitigation for Large-Scale Developments

Part E of GHR10 states that developments subject to EIA requirements should seek to deliver air quality improvements proportionate to their scale and impact and demonstrably going beyond relevant Air Quality Neutral [AQN London Plan Guidance](#) benchmarks. The Air Quality Positive [AQP London Plan Guidance](#) approach would typically capture this, as its overarching aim is to push development beyond compliance with both the AQN benchmarks and the minimum requirements of an air quality assessment. As there is no reference to AQP within GHR10, it is considered likely that this would mean AQP would no longer be used and therefore an alternative method of demonstrating a development is 'better than AQN' would need to be determined.

As Part E is subject to EIA requirements, we are also seeking clarifications that the method of determining air quality improvements 'demonstrably' better than AQN will also be dependent on the release of the Environmental Outcomes Reports ([Environmental Outcomes Reports: Roadmap to reform - GOV.UK](#)) and the updated IAQM planning guidance.

Our recommendation is that GHR10 explicitly states that developments should seek to deliver air quality improvements proportionate to their scale and impact, and that they go beyond Air Quality Neutral (AQN), such as following that Air Quality Positive (AQP) approach.

Need Additional Focus on Ultrafine Particulates

Recent evidence is showing that ultrafine particulates – UFP - pose severe health risks (e.g., cardiovascular disease, dementia). Black Carbon or particulate matter $2.5\mu\text{m}$ ($\text{PM}_{2.5}$) or less is described in the London Environment Strategy (Box 3) but not the finer particles and associated risks. A greater clarity is needed in GHR10 on definitions and mitigation strategies to inform appropriate targeted policies aligned with size classifications as follows:

- Primary / Nanoparticles ($< 100 \text{ nm}$): Individual spherical or oval primary soot particles are very small, usually around 5 to 50 nm. These tiny particles can agglomerate into chain-like, grape-like clusters.
- Ultrafine / Accumulation Mode (100 nm to $1 \mu\text{m}$): Most atmospheric black carbon mass concentrates in the 100 to 500 nm range (with mass median diameters often measured around 180 to 210 nm or roughly $0.18\text{--}0.21 \mu\text{m}$).
- Fine Particles ($1 \mu\text{m}$ to $2.5 \mu\text{m}$): Some particles can grow or aggregate up to $2.5 \mu\text{m}$, making them part of fine particulate matter ($\text{PM}_{2.5}$).
- Coarser Particles ($> 2.5 \mu\text{m}$): Larger black carbon-containing particles are rare in standard studies but can occasionally occur.

It should be noted that monitoring techniques typically will not capture direct source-receptor paths and relative importance of dispersion and deposition within solutions designed to improve air quality. Due to the difficulties associated with monitoring the concentrations and, in particular, transport of particles at such small scale, the use of Performance-Based Design (PBD) calculations should be explored to examine mitigation strategies that could be employed to better protect against UFP exposure, i.e. it is recommended that a library of best practices supported by calculated evidence is generated.

It is recommended that policy should shift toward monitoring UFPs due to their severe health impacts and establish clearer guidance on targeting and associated mitigation strategies, such as specifications for GI to optimise UFP deposition, in consideration of but not limited by the fact that more R&D / data would be required to improve the evidence base. New EU guidance recommends greater UFP monitoring so this guidance should be reviewed and incorporated in the London Plan.

Better Capture of the Value of Good Air Quality to Incentivise and Support Design

The Air Quality Neutral AQN London Plan Guidance framework includes an ‘offsetting payments’ methodology (Section 5.2) adding development costs for excess developer emissions. This is a clear methodology in support of a compliance measure designed with punitive measures. A natural capital framework can include a limited number of issues, e.g. including the value of carbon sequestration and air quality regulation, but it is still too restrictive in generating an understanding of the value of alternative project-based solutions that may be needed to improve air quality.

Our recommendation is to develop and incorporate wider value assessments, e.g. standard assessments plus health, wellbeing and productivity, associated with better air quality, into the London Plan. The current limited measures form a barrier to adoption as part of limited cost-benefit analyses. This equates to an effective "air quality performance gap" which needs addressing in support of better designs.

GHR11: Cycle and car parking

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

CIBSE response

We reiterate the 2017 recommendation that any EV charging infrastructure requirements set elsewhere in the Plan, or in supporting guidance to this policy, should encourage smart-charging capability, to support grid demand management alongside the low-carbon heat and energy-efficiency objectives of GHR1 and GHR2.

Chapter 6: Place visions and place-based approaches

PV1: Brownfield first Opportunity Areas

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No comment.

PV2: Central Activities Zone

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No comment.

PV3: Town centres and high streets

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No comment.

PV4: Strategic economic clusters and corridors

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No comment.

PV5: Industrial land supporting housing growth

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No objection, but we note that the re-designation of industrial and brownfield sites for future housing should also consider potential synergies with adjacent industrial uses e.g. datacentre sites which could provide waste heat to future housing.

PV6: Metropolitan Open Land

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No comment.

PV7: Sustainable development and enhancement of the Green Belt

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

CIBSE's 2017 response did not comment on the equivalent Green Belt policy (then G2), and we take no position on this policy in this response.

PV8: Strategic and local views

Do you consider that, in overall terms, the Chapter or policy identified within the draft London Plan is sound, having regard to the four tests of soundness?

No comment.

Response submitted by:

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