Towards a New London Plan

CIBSE Response

20th June 2025 – Rev1

1.6 Legal and procedural requirements

The London Plan has for many years been innovative or ahead of national regulations and many local authorities in its approach to planning, on issues such energy, carbon, overheating risk, and air quality. This means the data generated by applicants on these issues could be really valuable to inform its future policies, as well as those in the UK more widely. The GLA's annual reports currently go only a small way towards sharing this data in a way which could be of use to stakeholders when assessing the impact and effectiveness of policies - see detailed comments in questions 5.2 on Heat networks, 5.3 on Whole Life Carbon and the Circular Economy, 5.7 on Green infrastructure and Biodiversity, 5.8 on Water and 5.17 on Air quality. Along with the draft London Plan (once this is published for consultation), CIBSE recommend the publication of any analysis data gathered from applications (that already captured in the GLA monitoring reports, and additional data received from applicants), where the analysis has informed the new draft e.g. policies deemed effective which are retained as such or with more ambitious requirements, policies which are considered to need improvements and are proposed to be modified etc. This would greatly help:

- stakeholders assess the proposals in the draft Plan
- local authorities as they develop their own policies on similar topics
- future developments of national policy e.g. building regulations methodologies and requirements
- the later examination in public of the Plan.

4.2 Tall buildings

In addition to the storeys / height threshold, we recommend retaining the threshold for density (350 dwellings per ha) above which high scrutiny is recommended, to ensure that density is not provided at the detriment of essential qualities. This threshold aligns with industry research [PTEa et al, *Superdensity: The Sequel*, 2015 http://www.pollardthomasedwards.co.uk/download/SUPERDENSITY_2015_download.pdf] and with CIBSE's recommendations during the 2021 consultation.

4.4 London heritage

CIBSE very much agree that the London Plan could be clearer about the role of heritage buildings in meeting climate mitigation and resilience objectives. The London Plan could:

- **further encourage improvements as part of major refurbishment projects**, to improve energy and carbon performance as well as indoor environments and climate resilience. To inform this, the GLA could work with Historic England and review precedents to provide guidance on how to sensibly intervene on the historic stock. Recent examples include the Retrofit Revisit report, which demonstrates significant and long-term improvements to energy performance, user satisfaction, thermal comfort and air quality; the ACAN Climate Emergency Conservation Area Toolkit https://architectscan.org/resource/conservation-area-toolkit/ ; recent Retrofit Guidance and Appraisal guidance for the ESSA (Edwardes Square, Scarsdale and Abingdon) conservation area; and upcoming guidance by London Councils on retrofitting non-domestic heritage buildings. Outside London, Cambridge has examples of interventions which challenge what can be achieved on the existing stock e.g. Grade I Trinity College

student halls https://www.cibsejournal.com/case-studies/cambridge-first-exemplary-retrofit-of-grade-i-listed-halls-of-residence-at-trinity-college/ and the recent Entopia office building.

- **require more investigation of opportunities for retention, adaptation and retrofit**, rather than demolition and new build. A number of local authorities have demonstrated leadership on this issue, and the GLA could benefit from this experience e.g. City of London's "Retrofit First" policy.

4.6 Heat risk, ventilation and overheating

CIBSE strongly recommend against removing the requirements for overheating assessments as part of the planning process to rely on building regulations alone. This is for several reasons:

1 – The **planning stage is when the key design decisions are made** which will influence overheating risk e.g. orientation, aspect, proportions of solid and glazed areas, provision of external shading. Relying on building regulations alone risks these aspects being missed at the planning stage, increasing reliance on active solutions once overheating risk is assessed at detailed design stages.

2 – As noted by the GLA consultation document itself, **building regulations compliance can be achieved by relying heavily on mechanical cooling**. The GLA 2023 energy monitoring report shows a reduction in expected cooling requirements, thanks to the application of the cooling hierarchy (from 14.1 to 5.4 kWh/m2/yr); this indicates a policy which is effective, with multiple benefits:

- reducing energy costs and the risk of fuel poverty, particularly for those more vulnerable e.g. very young, elderly, or in poor health
- limiting the increase in urban heat island due to heat rejection from mechanical cooling
- improving resilience in case of grid failures, and reducing the risk of grid failures by reducing pressure on the grid during a heatwave.
- Beyond overheating risk itself, these passive measures are likely to provide additional benefits to residents e.g. dual aspect dwellings provide better provision of light and ventilation.

3 – The **delivery issues reported by some stakeholders are likely to be largely transitional** e.g. experienced designers can provide dual aspect dwellings in a space efficient manner; external shading products were uncommon and with long lead times in the UK market until recently, due to low demand; they should become easier to source as planning and building regulations requirements provide a stable demand for them. Changing policy now would revert the signal to supply chains. We must avoid creating precedents where supply chains are discouraged to invest in the long-term, due to perceived uncertainty.

5 London's infrastructure, climate change and resilience

A significant topic where climate change mitigation policy could progress relates to embodied carbon. Revising the 2022 analysis could refine the approach to WLC and support the introduction of limits – see §5.3.

A few years on from its publication, the 2022 study on Greater London's trajectory to Net Zero [Analysis of a Net Zero 2030 Target for Greater London, Jan 2022] should be reviewed and updated to reflect the latest data on the London stock and on the wider context e.g. CCC budgets, grid trajectory etc. In addition, CIBSE recommend the GLA consider embodied carbon emissions related to the built environment as part of these trajectories: these are not included in the 2022 study, nor are they (to our understanding) included in the London Energy and Greenhouse Gas Inventory unless the products were manufactured in London – rather than used as part of works in London (https://data.london.gov.uk/dataset/leggi /).

The **UK Net Zero Carbon Buildings Standard** team have developed a model of the UK built environment, with scenarios to remain compatible with the UK trajectory to net zero. This work combines "bottom up" analysis of what can be achieved at the building level, and "top down" analysis of what needs to be achieved to stay within the UK's carbon and energy budgets to 2035 and 2050. We would very much welcome the opportunity to discuss how this could contribute to the GLA's work towards the London Plan, and to support its built environment decarbonisation policies more broadly.

CIBSE regularly hear from industry about the challenges of grid connection for new schemes in some areas of London, with or without renewable provision. It would be useful if the London Plan provided guidance and clarity on how applicants can take account of these challenges at the time of application, given the often lengthy and costly processes involved in liaising with utilities. The Mayor of London should also liaise with utilities to ensure their views and future plans are taken into account in the Plan.

More generally on utilities, CIBSE look forward to the London Underground Asset Register being in place, as a potentially powerful resource for applicants and policy makers. We hope this will be in place by the time of the draft Plan, in order to inform proposals.

5.1 Energy efficiency standards

The London Plan were the first major planning authority to demonstrate leadership on climate mitigation, including the energy hierarchy. CIBSE continue to strongly support the energy hierarchy.

In the current state of knowledge about the Future Homes/Buildings Standard, CIBSE strongly recommend against relying on these alone in the next version of the London Plan. While the final FHS / FBS proposals are not known at this stage, the previous proposals received significant industry feedback that they were not ambitious enough, particularly on the “Be Lean” step.

The approach to energy performance could be further enhanced for policy effectiveness and to continue to demonstrate leadership on mitigation efforts:

- At the time of writing this response, there seems to be no data within the “Be Seen” layer in the London building stock model (https://apps.london.gov.uk/lbsm-map/public.html). From communications with the GLA, we understand this is due to technical issues which will be resolved. This is really important to resolve. While only few schemes may have been completed and occupied since the introduction of the policy, even design stage energy performance data could be valuable. This is the start of a shift in culture to reporting, and from compliance to performance. The GLA showed leadership by introducing the Be Seen policy to encourage attention to, and reporting of, actual energy performance. We recommend making the most of this policy and publishing this data at frequent intervals (e.g. monthly, to capture what was provided by applicants that month).
- In the years since publication of the 2021 Plan, some local authorities have implemented policies based on Energy Use Intensity (EUI) targets, rather than moving targets as % improvement on Building Regulations Part L notional buildings. We recommend this EUI approach should be considered for the revised London Plan. In the current approach, actual progress is nigh-on-impossible to track because of the use of Part L targets: because they rely on notional buildings, the targets change across buildings; they also change as Building Regulations get updated, and they change as carbon factors get updated. Overall, it is very difficult to get a sense of overall improvements across iterations of the London Plan. The analysis and experience of these Local Authorities, as well as the data gathered through the Be Seen policy, should provide a strong evidence base for the GLA to review its approach to energy targets.

5.2 Heat networks

At this stage, CIBSE strongly recommend against relying solely on regulations of heat networks, until there is sufficient information to assess whether these will deliver low carbon and energy efficient heat networks, both new and existing. While these regulations are still being refined, CIBSE had serious concerns about the 2024 proposals, including the accounting of emissions from CHP (risking to over-estimate carbon savings from the CHP-generated electricity), and unclear plans for requiring decarbonisation of existing networks (e.g. the consultation alluded to developing low-carbon standards for heat networks only in the mid-2030s).

We refer the GLA to the responses submitted by CIBSE to these 2024 consultations, including an analysis of the current data on heat networks and their performance (https://www.cibse.org/policy-insight/consultations/closed-consultations/the-future-homes-and-buildings-standards/ and

https://www.cibse.org/policy-insight/consultations/closed-consultations/heat-network-zoning-consultation/ .

The recommendations we made in response to these 2024 consultations are also valid for the London Plan i.e. if heat networks are to be encouraged:

- This must be on the basis of evidence and justified carbon accounting, including a comparison with other low-carbon heat options. Schemes should not be forced to connect to a heat network unless this clearly has benefits, including carbon emissions. While heat networks can capture opportunities for truly low carbon heat, such as from waste heat, CIBSE also regularly receive feedback of applicants forced to connect to a high-carbon network, which jeopardises their carbon objectives compared to on-site alternatives.
- There must be clear requirements (i.e. carbon content of heat limits) and incentives for low-carbon heat.
- We recommend retaining the hierarchical requirement that heat networks should be low-temperature ones, to help ensure they are future proofed. It is positive to see in the 2023 GLA Energy monitoring report that no new network with CHP plant has been proposed. However, this is not sufficient. The decarbonisation of networks which are currently in operation or being planned must be addressed. The continuing development of high-carbon networks will by 2050 require additional expenditure and efforts to decarbonise. The GLA provide a trajectory of carbon limits applying to heat networks, through to their decarbonisation, so that networks have a clear direction and are encouraged to take early measures, before being required to do so.
- The methodology for carbon limits must correctly account for the carbon emissions of networks (i.e. account for secondary losses, and not artificially reward electricity produced by gas CHP through the use of "marginal factors: these are to represent the conditions of the grid over very short periods of time, and should not be applied throughout the year).

The UK NZCBS has developed an approach to carbon content of heat limits:

- New networks should not have a carbon content of heat higher than on-site air source heat pump. Existing networks should not have a carbon content of heat higher than a network with an air source heat pump and good practice (CP1) losses. In both cases, this is calculated with an air source heat pump of "average" performance, so that heat networks which do take the benefit of sources such as waste heat, can operate heat pumps more efficiently and meet the limits.
- Existing networks using fossil fuels should have a committed decarbonisation plan, ending reliance on fossil fuels by 2030.

CIBSE would welcome the opportunity to discuss these with the GLA, and the approach to heat networks in general.

In addition, we strongly recommend that monitoring KPIs related to heat networks are reviewed: the current reporting focuses on how many schemes are proposed to connected to heat networks. This is no guarantee of performance in and of itself. The KPIs should take account of the networks' carbon content of heat and reliance on fossil fuels, and these should be published in the annual energy reports.

5.3 Whole life cycle carbon (WLC) and Circular economy (CE)

WLC - limits

Following the introduction of WLC reporting requirements in the 2021 Plan, CIBSE recommend the following:

- Consider the introduction of limits to upfront carbon within the new London Plan. Limits would then be introduced at the earliest in 2027, i.e. 6 years after the introduction of reporting requirements. This would not be onerous compared to the Part Z campaign, supported by hundreds of organisations, which recommends the introduction of limits 2 years after the introduction of reporting. It would be on similar or less ambitious timescale than many European countries introducing embodied carbon regulation.
- To inform these limits, review and publish the upfront and life cycle embodied carbon data submitted by applicants (the current GLA monitoring reports only include the average across the schemes, and as a total for module A). The same level of information should be

published, as is done for energy & operational carbon, differentiating between residential and non-domestic sectors e.g. average performance, distribution of performance across schemes, and breakdown into individual WLC modules.
- Review the Greater London trajectory to Net Zero – see §5.

We do not support the proposals that if applicants claimed to meet an embodied carbon benchmark (or limit) this could "reduce the information needs to be submitted": this could easily encourage spurious claims.

The UK NZCBS would be happy to discuss the evidence base behind the NZCBS Pilot upfront embodied carbon limits and their proposed trajectories over time.

Retention vs Demolition (related to both WLC and Circular Economy)

A significant weakness in the current WLC policy is that only the retained option is assessed and presented. The purpose of WLCs should not solely be to assess one option, but to assist the applicant and the planning authority in the appraisal of options. The WLC policy could require several options to be examined. CIBSE would support the introduction of guidance on assessing different retention or demolition options for a site as otherwise, given the number of possibly scenarios and assumptions, it is very easy for WLC assessments to be produced which support a particular decision. There is a delicate balance to find, so that meaningful and realistic options are examined without over-burdening applicants. A number of local authorities have introduced (or are in the process of introducing) policies in this area, including the "Retrofit First" policy in the City of London – these should be useful precedents when developing the London Plan.

Circular Economy

Circular economy indicators should be included in the GLA annual monitoring reports, to start gauging the impact of the current policy.

In addition, the GLA should use its position, with visibility over needs and supplies of materials from upcoming new build, demolition and retrofit works, to support and potentially lead circular economy efforts across stakeholders in the area e.g. by establishing or supporting exchange platforms and initiatives such as Circular Steel.

Note: we are aware of the "business matchmaking" platform ReLondon, already funded by the Mayor of London, but it does not seem to have a construction & RMI angle.

5.7 Green infrastructure and biodiversity

The current GLA annual monitoring reports provide hardly any information on urban greening and biodiversity, only on the proportion of schemes where harm has been identified to the green belt or metropolitan open land. This is an extremely narrow way to look at biodiversity and green infrastructure.

We note that the GLA "would like to understand from stakeholders from the UGF has been implemented so far". Equally, it would be useful for the GLA to publicise data on UGF across schemes, as a KPI, as part of GLA annual monitoring reports. This should show average and distribution, differentiate between residential and non-residential schemes, and ideally include other factors such as storey height, and sub-indicators which contribute to the UGF score e.g. provision of trees, amenity grassland etc. This could be useful to a range of policies including biodiversity, climate change adaptation and resilience, and health & wellbeing. For example, are higher UGF improvements targeted by policy, and delivered in practice, in Boroughs which currently are exposed to a higher heat risk and/or flood risk, or with a smaller proportion of their area under a tree canopy cover (all as available from the London Climate Risk map https://cityhall.maps.arcgis.com/apps/instant/media/index.html?appid=59236d2e842c4a3ba6480d9dac585d1e)?

It would also be very useful, as part of the draft London Plan, to publish an analysis of how the UGF factor delivers on biodiversity, and how it compares with the national Biodiversity Net Gain approach in this regard.

5.8 Water

CIBSE recommend liaising with utilities on site-wide water use of new residential development, to assist in monitoring the effectiveness of current policies.

5.17 Air quality

The statements on air quality improvements are encouraging, although it must be noted that the drop coincides with the pandemic and lockdowns, so this should continue to be monitored in case pre-pandemic travel patterns lead to an increase.

CIBSE agree that the WHO targets should remain the reference.

Poor air quality is often linked to other environmental factors (e.g. noise) and may contribute to health inequalities. The GLA annual monitoring reports state that 20% of development do not meet the “air quality neutral” objective. This is not negligible, and should be examined in more detail, to understand the causes and potential ways to address this.

CIBSE agree with the proposal to review the approach to construction sites and whether measures could be requested to limit pollution from these. We recommend seeking information from the Construction Equipment Association about latest trends in low emissions equipment.

5.18 Heat risk

See our responses to:

- §4.6 heat risk at the building level, with impacts on wider UHI
- §5.7 urban greening monitoring and reporting.