

Just Space Matter 67 Sustainable Infrastructure

Minimising Greenhouse Gas Emissions, Energy Infrastructure and Managing Heat Risk

M67. Would Policies SI2, SI3 and SI4 assist in creating a healthy city in accordance with Policy GG3 and provide an effective strategic context for the preparation of local plans and neighbourhood plans? How would they affect the implementation of Policies GG4 and GG5 on delivering the homes Londoners need and growing a good economy? Are these policies and their detailed criteria justified and necessary and would they provide an effective basis for development management? In particular:

a) In seeking to minimise greenhouse gas emissions does Policy SI2 provide sufficient clarity about the zero-carbon target and how and when it is to be achieved? Is the target justified and consistent with national policy and other policies in the draft London Plan? Are all the criteria and supporting text necessary?

The 2050 target is not enough. The IPCC's Special Report on Global Warming of 1.5°C, published in October 2018, brought together the latest climate change research to warn that previous global commitments to limit global temperature rises to two degrees Celsius will not avoid irreversible environmental damage. It therefore said that this target must be revised to a maximum increase of 1.5 degrees Celsius instead. The report says the world has just 12 years left (i.e. up to 2030) to avoid catastrophic climate breakdown. It confirms that limiting Global Warming to 1.5°C may still be possible with ambitious action from national and sub-national authorities and others.

In response, two of the UK's largest cities moved to strengthen their decarbonisation plans, as the city councils of Manchester and Bristol both voted to bring forward their target dates for securing 'carbon neutral'; or 'zero carbon' status.

Bristol City Council agreed to make the city 'carbon neutral' by 2030 - a full 20 years earlier than the previous target. This set "a gold standard on climate action".

Manchester City Council formally adopted a new target to become a 'zero carbon city' by 2038, 12 years earlier than the target it replaces.

Manchester's plan, *Playing Our Full Part*, developed by the Council's Climate Change Board with input from the University of Manchester's Tyndall Centre would introduce a science-based 'carbon budget' for the city that caps total emissions at 15

million tonnes from 2018-2100. To meet the target the city will be required to cut emissions 13 per cent year-on-year from 2018 onwards, making it a net zero carbon city by 2038. The Manchester Climate Change Board will now develop a draft action plan by March 2019, ahead of producing a final plan by 2020, detailing how the city can stay within its carbon budget.

The Energy and Clean Growth Minister Claire Perry signaled a rethinking of national commitments on setting a date for when the UK could achieve zero carbon emissions.

The Mayor of London has stressed that he wants London to be ‘a beacon of the world’ that ‘helps to generate the opportunities that will accelerate the pace of change to create better cities for all’¹. He has since, in December 2018, declared a climate emergency in London, following calls from the London Assembly² and issued the “Zero Carbon London: A 1.5 °C Compatible Plan”.

The full text of the London Assembly motion:-

“This Assembly notes that the IPCC’s Special Report on Global Warming of 1.5°C, published in October 2018, describes the enormous harm that a 2°C rise is likely to cause compared with a 1.5°C rise, and confirms that limiting Global Warming to 1.5°C may still be possible with ambitious action from national and sub-national authorities and others.

This Assembly notes the Mayor’s climate change mitigation and adaptation responsibilities and recognises that he aims to make London a zero-carbon city by 2050 and would welcome further ambitious steps.

We welcome action by Bristol city council and other city councils around the world to declare and commit resources to tackling a ‘Climate Emergency’.

We urge the Mayor to declare a Climate Emergency, supported by specific emergency plans with the actions needed to make London carbon neutral by 2030, call on government to give him the powers and funding to make this possible and, as vice chair of the C40 Cities network, to be a leader on this agenda.”

The London Plan needs to reflect the strong public stance that the Mayor has taken by setting a target for London to be zero carbon by 2030. This is justified as a reasonable response to the latest science, and therefore consistent with the NPPF definition of sustainable development.

Alongside a more ambitious target, all policies need to be viewed through their impact on greenhouse gas emissions. This must mean a stronger focus on renewables, clean transport infrastructure and looking again at all carbon intensive projects.

¹Khan, S. (2016) in C40 blog - https://www.c40.org/blog_posts/mayor-of-london-sadiq-khan-on-his-climate-change-priorities

² <https://www.london.gov.uk/press-releases/assembly/call-on-mayor-to-declare-climate-emergency>

The Mayor's Zero Carbon Plan still lacks clear pathways and monitoring. Much could be learned from the Manchester approach and from the C40 cities, in which the Mayor of London is deputy leader.

The report, Deadline 2020, by the C40 Cities presents a detailed pathway of what C40 cities need to do to play their part in converting the COP21 Paris Agreement from aspiration into reality. Target emissions trajectories have been established for individual member cities, including London. The work outlines some of the city-specific action pathways necessary to meet the target trajectories. To remain within a 1.5 degree temperature rise, average per capita emissions across C40 cities need to drop from over 5 tCO₂e per capita today to around 2.9 tCO₂e per capita by 2030.

The draft London Plan does not provide a clear implementation strategy of how policy SI2 will be fulfilled. This is essential. For example, **9.2.5** states that 'the minimum improvement over the Target Emission Rate will increase over a period of time', however, there is no clear roadmap showing the trajectory of how the minimum improvement over the TER will progress. A clear roadmap should be provided to support aims to become a zero-carbon city.

Additionally, policy **SI2DA** asserts that unregulated emissions should be minimised, but does not specify by how much. In order to achieve a truly zero-carbon city, the plan must specify a minimum reduction benchmark, as has been done for on-site emissions in **SI2C**. Additionally, as with the above concern, the LP must provide a clear roadmap as to how emission reduction targets will progress over time.

Carbon off-sets

Despite the emphasis put on offsets to achieve a carbon-neutral London, information on how carbon offsetting will be achieved, measured and implemented in **9.2.7** is lacking. The Energy Hierarchy says new developments can use offsetting wherever zero-carbon is not possible, which leaves space for developers to circumvent minimum targets to 'pay' to pollute. We are concerned that for large companies offsetting is too easy an opt-out to meet their carbon or energy efficiency obligations. Offsetting should be a last resort, and a clear road map on regulation, implementation and measurement is needed.

The London Environment Strategy details how a zero-carbon London can benefit communities through using offset financing for fuel poverty reduction strategies such as community managed district heating systems, community-led renewable energy schemes and retrofitting projects³. The Sustainable Design and Construction

³ 'London Environment Strategy' (2017) Greater London Authority
https://www.london.gov.uk/sites/default/files/london_environment_strategy- draft_for_public_consultation.pdf

Supplementary Planning Guidance suggests funding community energy and heating systems through carbon offsets⁴.

Whilst this process is underway in 22 boroughs, the London Plan should acknowledge this as essential and provide clear guidance and support to LPAs in **SI2 and SI3 (9.3.1, 9.3.2, 9.2.8)**⁵. The National Energy Foundation has found that local authorities have found current regulation difficult to interpret due to lack of clarity in CIL⁶. Only seven out of 22 have reinvested funds back into tackling fuel poverty and community-led renewable energy initiatives - 'LPAs are looking to the GLA to provide a clear, reasoned and positive stance'⁷.

The policy in SI 2C and D should give a strong indication that off-setting is not the preferred route and where it is used it must be linked to fuel poverty reduction programmes.

How will policies SI2, SI3 and SI4 affect policies GG4 and GG5?

Good growth in London is tangential with green growth. Policies SI 2, 3, 4 can further good growth objectives GG3 and GG5 and additions should be made to the GG objectives to achieve this. The principles of green growth comply and uphold good growth principles. Growth must be green in order to achieve long lasting social, economic and environmental equitable development.

For example **GG3's** aim of delivering the homes Londoners need whilst achieving a healthy city for all can be realised through retrofitting strategies which simultaneously protects existing social housing, tackles fuel poverty (a major cause of winter deaths), improves air quality and creates jobs alleviating pressure on London's population growth. It will similarly lower heating costs for residents, and lessen energy use for heating which makes one third of London's domestic energy usage. Affordable, equitable housing is only possible in a healthy, resilient city.

b) How are unregulated emissions and whole life-cycle carbon at Policy SI2 DA and DB to be calculated and is this justified?

We welcome the changes DA and DB. Embodied carbon as part of a whole life cycle carbon approach is essential. We would justify this through the following:

The Centre for Sustainable Development says that in order to meet decarbonisation targets it is necessary to reduce not just the operational carbon emitted (once a

⁴ 'Sustainable Design and Construction Supplementary Planning Guidance' (2014) Mayor of London https://www.london.gov.uk/sites/default/files/gla_migrate_files_destination/Sustainable%20Design%20%26%20Construction%20SPG.pdf

⁵ Review of Carbon Offsetting Approaches in London (2016) National Energy Foundation https://www.london.gov.uk/sites/default/files/gla_cof_approaches_study_final_report_july_2016.pdf

⁶ Review of Carbon Offsetting Approaches in London (2016) National Energy Foundation

⁷ Review of Carbon Offsetting Approaches in London (2016) National Energy Foundation

building has been constructed), but also the embodied carbon (the processes of material extraction, manufacturing, delivery to site, construction processes, and also demolition and recycling).

Link here to UK Green Building Council and BRE document - <https://www.ukgbc.org/sites/default/files/UK-GBC%20Embodied%20Carbon%20guide.pdf>

This has a list of resources, tools, standards and guidance - on p3, databases, case studies on page 4.

We refer also to studies of the Life Cycle Carbon Footprint (LCCF) which calculates embodied carbon.

Schwartz, Y., Raslan, R., & Mumovic, D. (2018). The life cycle carbon footprint of refurbished and new buildings – A systematic review of case studies. *Renewable and Sustainable Energy Reviews*, 81(July 2017), 231–241. <https://doi.org/10.1016/j.rser.2017.07.061>

Our interest in this is also that in the assessment of the environmental benefits relating to refurbishment or demolition of homes, demolition can appear to be a better option (despite actually being more damaging to the environment) where embodied carbon is excluded in the assessment. Therefore, Policy SI2 should require assessment of embodied carbon in both new developments and in refurbishment schemes and provide a target for reducing embodied carbon emissions.

c) Are the provisions in Policy SI3 relating to energy masterplans justified? Should they be limited to large-scale development locations and is the list of items to be identified comprehensive?

SI3B must provide more detail on the role of energy masterplans. Firstly, **SI3B** should provide more clarity on the role of local authorities and boroughs in the establishment and realisation of future energy requirements. Secondly, **SI3B** must be broadened to both small-scale developments and major development. The GLA has repeatedly stated the plan must be viewed as a whole, thus small scale development should also be emphasised in this policy, as is in accordance with policy **H2** of the draft LP.

Energy masterplans must also include consultation with residents and their involvement in decision making. This is a surprising omission from the policy after Grenfell regarding insulation materials and cladding.

d) Are the provisions in Policy SI3 relating to major development proposals within Heat Network Priority Areas justified? Is the sequence and content of the heating hierarchy justified having regard, amongst other things, to greenhouse gas emissions?

District Heating is a key strategy for reducing greenhouse gas emissions alongside fuel poverty, but must be done better in order for these benefits to be felt at the community level and to be truly socially and environmentally sustainable. There should be no repeats of what happened at Myatts Field North.

Therefore the GLA must play a greater role in regulating this sector. District Heating systems must be run, or be held accountable, by communities. The establishment of the District Heating Network Delivery Body would allow the Mayor to play a more direct role in the delivery of heat networks, and therefore regulation of district heating. The London Plan is far less progressive than the London Environmental Strategy in delivering, funding and monitoring DH systems for communities and the environment. These need to be realigned.

The London Plan must explicitly acknowledge the prioritization of decentralizing energy and heating with promoting community-led management in **9.2.10, 9.3.3, 9.3.5 and SI3D** in order fulfil the aims of the London Environmental Strategy and to achieve good green growth.

We are concerned about the lack of any written-in protections for heat network residents, in terms of reliability, service, or costs. There are cost implications to the consumer of a single commercial provider in any one area; essentially a monopoly, and presently an unregulated one.

We feel this policy should require that

- (i) a full assessment is made in each case of costs of different alternative energy supply options, dependent on number of users and energy performance to assess whether CHP and District Networks have the potential to be the best options in terms of costs for low income households and in terms of the climate and local environmental (air quality);
- (ii) there be full consideration of renewable energy options including community owned energy projects and of community owned heat networks;
- (iii) residents should be fully consulted on heating options in both refurbished and regenerated schemes, and buyers should be fully informed about what they are buying into.
- (iv) there should be ongoing monitoring of new schemes to ensure that what they say will be achieved is actually delivered, with information made available to

residents in understandable form, and with punitive sanctions when commitments / contracts are breached, with compensation going to the end user.

e) Would Policy SI4 adequately address the contribution of the design of outdoor space to urban cooling without creating other adverse impacts and does it consider overall thermal comfort?

No comment

f) What is the justification for the cooling hierarchy as set out in Policy SI4B?

No comment

g) Do the policies place sufficient emphasis on the use of renewables and energy efficiency?

No. Achieving zero carbon or carbon targets in general requires a major energy transition to both renewables and new forms of decentralised energy that has to be integrated across all sectors. The plan misses an opportunity for the development of a cross London wide plan for energy transition based around a single London energy company to drive this. Above all, with a focus on renewable energy, energy efficiency and tackling fuel poverty) affordability and community engagement. The proposals from Switched-On London should be supported in the London Plan⁸.

Home energy efficiency should be seen as a major infrastructure priority in the London Plan, doubly important given the possibilities to both reduce greenhouse gas emissions and fuel poverty. We suggest:-

- targets are set in the Policy to increase decentralized renewables ten-fold by 2025.
- changes that require the Mayor and his family of functional bodies to use their property portfolio for extensive renewable energy production and local distribution. This includes storage capacity.
- there is policy commitment to a major retrofitting programme for existing homes, with those in fuel poverty having their homes insulated first
- the introduction of London-wide minimum energy efficiency standards in private rented homes, of Energy Performance Certificate C, by 2025.

⁸ <http://switchedonlondon.org.uk/about-us/>

The current London Plan includes explicit encouragement for community-led initiatives for renewable energy in section 5.41⁹. This is missing from the draft London Plan and inconsistent with national policy on Community Energy.

Community energy groups are under-represented in London (compared with the national picture) and the Mayor should use the London Plan to provide policy support, including the ability to gain leases particularly the use of roofs of public properties. Also, to set a measurable target for renewable energy from community projects.

⁹ The London Plan (2016) Greater London Authority
https://www.london.gov.uk/sites/default/files/the_london_plan_2016_jan_2017_fix.pdf