

Strategic City Planning Team,
Bristol City Council,
City Hall,
PO Box 3176,
Bristol,
BS3 9FS

2 May 2019

Dear Madam/Sir,

Re: Bristol Local Plan Review Consultation

Please see below our comments on the draft Bristol Local Plan.

1. Chapter 13: Climate Change and Sustainability

Overall, we are strongly supportive of the aims and policies offered in this chapter.

2. Draft Policy CCS1: Climate Change, sustainable design and construction

- a. Policy text should include reference to heat recovery ventilation with passive night time cooling rather than passive ventilation.
- b. Policy text should also refer to an efficient building form factor, careful glazing design to avoid overheating (rather than passive solar design) and consideration of building orientation.
- c. We fully support the use of Passivhaus certification to support compliance with policy CCS1, but would suggest that it is made more explicit that the BREEAM requirement can be supplanted by Passivhaus certification rather than being required in addition.

3. Draft Policy CCS2: Towards zero carbon development

- a. We note that you have used the same definition/route for zero carbon as the London Plan (i.e. a 35% reduction in emissions with the remaining emissions being offset). There are a number of issues with this definition which results in it being far from actual zero carbon. These include:
 - i. Restricting the definition to regulated energy means that unregulated energy is neither calculated or taken into account.
 - ii. The seasonality and diurnality of renewable energy means that energy storage is required to be truly zero carbon. This results in storage losses which need to be taken into account in the definition of zero carbon.

These points are expanded further in our recent analysis of how Passivhaus relates to zero carbon. See [Passivhaus: the route the zero carbon?](#), 2019.



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- b. Whilst the policy does refer to off-site or near-site provision of renewables, this is not quantified and thus all residual offsets could simply be offset by payment. Carbon offset schemes are notoriously difficult to police and often do not result in the expected levels of reductions. We would therefore suggest including a requirement that at least 50% of the residual emissions be offset using off-site renewable energy.
- c. We strongly support the use of the Passivhaus standard as an alternative compliance route to the zero carbon definition. Our recent paper on zero carbon showed that this is a more effective route to lower emissions than renewables and offsetting.
- d. When referring to existing buildings, the policy could offer the Passivhaus refurbishment standard (EnerPHit) as an alternative compliance route.
- e. New heat networks should be required to have a low carbon heat source (i.e. no gas).

4. Draft Policy CCS3: Adaption to a changing climate

- a. The requirement for an overheating assessment, using CIBSE TM52/59 methodology, should be included in the policy rather than the supporting text. This provides specific targets, rather than just requiring mitigation.
- b. For commercial and large residential buildings, glazed facades should be specifically prohibited. See New York's emerging policy on this [here](#).

Please feel free to contact me should you require any clarification or further information.

Yours sincerely,

John Palmer
Research and Policy Director