

Net zero carbon development plan document

Response to the Consultation from George Martin 9th September 2021

My response to the consultation:

I have read carefully over the consultation document.

Whilst I applaud the ambition of WDC and when successfully completed the DPD will be a GIANT step forward, the current document has too much wriggle room for developers / house builders thus enabling them to deliver their current crap by just adding a heat pump.

Doing so will not deliver net zero carbon in use now, will result in larger energy costs for the occupier and will require expensive retrofit in the future.

I understand that the document was prepared in-house by WDC officers without any external input and was led by Dave Barber, in consultation with colleagues from the planning policy team. Can I strongly suggest that as WDC takes this policy forward that specialist advice is procured from organisations employing people who have done this before. I did suggest this to Dave Barber some time ago and volunteered to suggest a short list of such organisations for WDC to choose.

To give just one example as to why specialist external advice is needed consider Policy NZC2(A) is just not correct.....because:-

- SAP **does not** demonstrate energy efficiency in operation - i.e. in use?
- The Future Homes Standard does **not** set out performance metrics for performance in use
- Nationally recognised standard for performance in use are really only Passivhaus, Passivhaus Plus, BREEAM New Construction and NEF's Assured Performance Process. Others might include AECB and Energiesprong but I would not call these National standards.
- The most up to date SAP does **not** deal with the 'performance gap'.

Energy modelling needs to be good at predicting energy use

The accuracy of energy modelling is important to ensure it provides a reasonable indication of real-world performance in use. While behaviours may vary once a building is occupied, energy modelling can be used to reliably establish baseline energy consumption.

SAP and SBEM are used to produce Energy Performance Certificates (EPCs), which provide the energy rating for a home. They are **not** accurate at predicting energy use – they have been designed primarily as a tool to show compliance with building regulations, and do not include some categories of energy in use. They tend to assume a building receives more 'free heat' than is usually the case in reality. Post occupancy studies in the UK and Europe have shown that PHPP is generally accurate. Until SAP, SBEM and EPCs are improved I would not recommend their use as key performance indicators.

I believe the most robust energy modelling tool to evidence net zero carbon is PHPP. For this reason, my opinion is that all technical feasibility analyses should use PHPP to determine the compliance with "net zero carbon".

My headline suggestions are:

- Specify only Net Zero Carbon in use
- No SAP - only use PHPP. This is the Passivhaus Planning Package
- Offsetting in terms of renewable energy only - no trees - like NONE
- No gas
- No hydrogen

- Provide good viability documents and include whole life costing.
- Mandate an international QA standard that targets 'in use'

Instead of spending time trying to improve the document I decided to seek assistance from colleagues and in so doing, find examples of where net zero carbon policies have been successfully and robustly developed. I am pleased to report that some Local Authorities already have set a 'zero carbon homes' policy.

I would draw your attention specifically to the documents published by **Greater Cambridge** on the 31st August 2021

I refer you to the Preferred Options (First Proposals) version of the Greater Cambridge Local Plan. The document and all of the evidence is to be discussed at a committee meeting on the 8th September and can be found via the following

[link:https://consultations.greatercambridgeplanning.org/greater-cambridge-local-plan-first-proposals](https://consultations.greatercambridgeplanning.org/greater-cambridge-local-plan-first-proposals)

The evidence is all in the **document library** section of the webpage and if you click on explore the themes, you can go straight to the climate change section, although I'm sure some of the other sections will be of interest as well.

The Cambridge document is for a new Local Plan – also of use to WDC/SDC as you develop a new Local Plan. As such there are many documents – however with regards the DPD, I would refer you specifically to the following four documents:

- Net Zero Carbon Study – defining net zero carbon
- Net Zero carbon Policy Recommendations
- Net Zero Carbon Evidence Base – Task D Technical Feasibility
- Net Zero Carbon Evidence Base – Task F Offsetting

These documents were prepared by a team of people from the following organisations:

- Etude
- Bioregional
- Currie and Brown.

I would be happy to put you in touch with the Greater Cambridge if you would find that helpful. Cambridge are founding members of the Good Homes Alliance Vanguard Research Project for which WDC are fairly recent members. Perhaps making contact through this link would be helpful.

I hope that my comments are helpful

George Martin

