

3rd February 2023

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Dear Sir

Warwick District Council Net Zero Carbon DPD

I have been a resident of Kenilworth, Warwickshire for over 40 years. My specialism is in relation to the performance of buildings in use.

I am retired from paid employment. My background is as follows:

Through paid employment:

- Director of Environment – Tarmac Construction
- Director of Business Affairs at the UK's Leading Sustainable Development Charity, Forum for the Future.
- Director of Sustainability - Building Research Establishment
- Director of Sustainable Development - Willmott Dixon
- Professor of Low Impact and Sustainable Buildings – Coventry University
- Chief Executive Building Performance Network

Current on a voluntary basis

- Chair - Sustainable Development Foundation
- Chair – Building Performance Network.
- Board Member - Good Homes Alliance.

During 2022, I responded to the DPD consultation and in addition made a personal presentation to the full Council meeting on the 7th September 2022.

This submission does not include all of the points that I made in responding to the DPD consultation. Here I highlight my key concern and explain how in my view, the DPD can be made sound.

I fully support Local Authorities with initiatives to improve the performance in use of buildings beyond the current building regulations. Such initiatives must be accurate and must not mislead occupants. Whilst as part of my response to the consultation, I suggested a number of ways by which the DPD could be improved my main point was that the title of the document namely 'Net Zero Carbon' was both incorrect and misleading.

The relevant definitions included in the Glossary within the submission version of the DPD dated August 2022 are as follows:

Net zero carbon: Net zero refers to achieving a balance between the amount of greenhouse gas emissions produced and the amount removed from the atmosphere.

Zero carbon building: A building with no net carbon emissions resulting from its operation over the space of a year.

The policies within the DPD document do not meet with either of these definitions. There are a number of reasons for this.

1. The DPD is for **regulated** energy only and does not include **unregulated** energy. The fact that the DPD does not include unregulated energy is not wholly transparent within the document.
2. The DPD does not take into account the Performance Gap.
3. The DPD relies on using SAP and SBEM which are poor predictors of the actual energy use of a building. This fact is clearly pointed out in the *Energy and Sustainability Policy Review Rev 05 updated 26th April 2022* document which formed part of the DPD consultation.

I have abstracted the following paragraph from that document – page 11

Unfortunately, the calculation methods used in Building Regulations Part L (SAP and SBEM) are [very poor](#) predictors of the actual energy use of a building. SAP and SBEM [are compliance tools](#), not really tools to predict energy and carbon performance (even though they purport to be). This is not only due to out-of-date carbon factors used for different energy sources, but the entire methodology. This is a key reason for point (1).

Point (1) referred to above is as follows:

1. [Poor methods used to predict the energy use of a building](#) (including poor calculations, incorrect assumptions, and exclusion of 'unregulated' energy loads)

It is unfortunate that there are no nationally agreed *definitions* for net zero carbon or a zero carbon building. However there is an initiative called the *Net Zero Carbon Building Standard* (NZCB Standard) which commenced in 2022 to specifically develop a standard, definitions and a verification process. This initiative involves the following organisations:

- Building Research Establishment
- CIBSE
- RIBA
- RICS
- UK Green building Council
- Carbon Trust
- Better Building Partnership

There are 14 Sector Groups to ensure that the Standard is widely applicable and best suited to the wide range of building typologies found in the built environment. I sit on the Housing Sector Group.

The plan is that definitions will be available for consultation in the summer of this year.

To simply describe the direction of travel for *true net zero carbon* buildings the current consensus of opinion is that an **Energy Use Intensity** (EUI) target will be developed for different building types. The EUI will include both regulated and unregulated energy i.e. all metered energy. To take low rise housing as an example, all of the EUI will be matched by on site renewable energy in this case Photovoltaic Panels on the roof. For other buildings such as flats, offices, etc, where it is not possible to match with on-site renewables – offsite solutions will be agreed but not offsetting with trees.

My previous suggestions for a revised title included:

- Transition to Net Zero Regulated Carbon DPD
- Towards Net Zero Regulated Carbon DPD

However, following my involvement with the NZCB Standard over the past 3 months I am of the opinion that having ‘net zero carbon’ in the title is still misleading.

Following the publication of the **Cornwall Council Climate Emergency DPD** my recommendation is that the revised title of the document should be:

“Warwick District Council Climate Emergency DPD”

My understanding is that Cornwall Council submitted the Climate Emergency DPD for independent examination in November 2021 and that the Planning Inspector has confirmed that the plan is sound subject to recommended modifications and that the plan can now proceed to be adopted on 21st February 2023.

I have abstracted a paragraph from the **Cornwall Council Climate Emergency Development Plan Document – Minor and Main Modifications consultation July 2022** page 43.

2b - New Development – Residential

Residential development proposals will be required to achieve Net Zero Carbon and submit an ‘Energy ~~and Carbon~~ Statement’ that demonstrates how the proposal will achieve: **[MM48]**

- Space heating demand less than 30kWh/m²/annum;
- Total energy consumption less than 40kWh/m²/annum; and
- On-site renewable generation to match the total energy consumption, with a preference for roof-mounted solar PV.

This correctly expresses the direction of travel that is being advocated by many experts many of whom are part of the NZCB Standard initiative that I have previously described.

Note: The total energy consumption in the above paragraph is the same as the Energy Unit Intensity

Why am I so concerned about this:

In recent months I have been at two events hosted by Warwick District Council. At each of these events WDC representatives have stated that as and when the DPD is approved by the Planning Inspector, all new homes in the district will be 'zero carbon'. In addition, WDC through their wholly owned Milverton Homes subsidiary have stated publicly that they will be providing a number of 'zero carbon' homes in Kenilworth through a partnership with Vistry Group. Following my enquiry with Vistry Group, it is apparent that the specification is for regulated carbon only using SAP and with no specific processes in place to negate the inevitable performance gap.

Can I take this opportunity to remind you of the definition used by WDC in the DPD Glossary for a Zero Carbon building

Zero carbon building: A building with no net carbon emissions resulting from its operation over the space of a year.

My point is that these homes will not be zero carbon buildings.

Conclusion.

The Warwick District Council Net Zero Carbon DPD is an improvement on the 2021 building regulations, and I would not want to delay its implementation. However, it is most certainly not 'net zero carbon' and this title is incorrect and importantly misleading.

My recommendations as to how the DPD can be made sound are as follows:

1. The title of the document be changed to Warwick District Council Climate Emergency DPD
2. Where mention in the document is made to 'net zero carbon' it should be made clear that this is an initiative towards net zero **regulated** carbon.
3. The document should make it clear that unregulated carbon is not included in the DPD.

George Martin

Chair - Building Performance Network