Examination into the Shropshire Local Plan

Hearing Statement - Matter 29 of ID40 Policy DP11-Climate Change (Modified in gc4m to become DP12)

1. Since my original Representation was made in February 2021, there have been many changes impacting on this Policy in terms of knowledge of the impacts of climate change, dramatic increases in energy prices, changes to Building Regulations and consultation on further changes forecast to commence in 2025. It is likely that the context may change further by the date of the Hearing in December 2024. Further analysis of the implications of policy options has also become available.

2. The requirement stated in Paragraph b. of the Policy for a minimum of 19% improvement in Part L of the 2013 Building Regulations for homes is clearly inadequate and has already been exceeded by the 2021 Building Regulations. The previous government consulted on a further uplift to the Building Regulations which would considerably exceed the requirement stated in the Policy. Option 1 of this consultation goes further and would require a much higher standard of renewable technology including better air tightness, mechanical ventilation and photovoltaic panels. This would result in homes that are not just zero carbon ready but with affordable heating bills. A further reduction in running cost can be achieved by the installation of home batteries which enable occupiers to store excess solar power and store energy from lower rate nighttime tariffs.

3. The level of viability in the 2020 Viability Assessment (EV115.01) indicated that the ability to finance additional measures varies across the County while the update in June 2024 (gc.49) indicated that viability had generally improved as sales prices had risen faster than costs even taking into account new requirements on house builders. As it is still not known what, if any changes will be made to Building Regulations, I consider an uplift in standards is necessary to address the requirements of climate change. In terms of viability, Paragraph 4 of the Policy was probably drafted before the revised NPPF was published in 2019 where a greater emphasis was placed on assessing viability at the stage of policy preparation rather than for individual decisions. There is more detailed guidance in the PPG under the title of Viability and Decision Taking Paragraphs: 007-9 Reference ID: 10-007-20190509.

4. The UK Green Building Council and hundreds of other organisations have called for higher standards to be applied[1] in a letter dated 27th March 2024 to the Secretary of State for Levelling Up, Housing and Communities.

5. Shropshire has already been severely impacted by the effects of climate change. Flooding on the River Severn has been more frequent affecting many residential and commercial properties on many occasions. Many properties have been flooded in successive years. Road and rail infrastructure has been damaged with landslips closing and restricting roads with several bridges swept away. Storm damage to trees has caused road accident mortalities. Action to tackle climate

[1] https://ukgbc.org/policy-advocacy/new-build-standards/future-homes-standard -see Appendix 1

change is clearly justifiable.

6. Taking all of the above into account, I have concluded that the Policy is unsound and I am putting forward revised proposals for modifications to policy DP11 in order to address this.

7. Paragraph b. of the Policy is amended to reflect the changes put forward in The Future Homes and Building Standards Consultation published in 2023, which is currently under consideration by government.

8. Paragraph c is modified to increase the level of energy from on-site renewable energy sources.

9. Paragraph d is strengthened by making it a normal requirement.

10. The proposed modification is set out below.

~~DP11.~~ DP12. Minimising Carbon Emissions

1. New residential development will contribute to reducing the impact of climate change in accordance with Policy SP3 by:

a. Being designed to maximise fabric energy efficiency including such measures as: building orientation; high levels of insulation of roofs, floors and walls; maximising airtightness and using solar gain through window/door orientation whilst avoiding overheating and:

b. Ensuring all proposals for 10 or more dwellings achieve a minimum of ~~19~~ **30**% improvement in the energy performance requirement in Part L of the 2013 Building Regulations, until such time as the Building Regulations are increased to a level which exceeds this uplift and:

c. Ensuring all proposals for the formation of one or more dwellings provide a minimum of 10% of the predicted energy needs of the development from on-site renewable and low carbon energy sources**. Additional measures should be incorporated where a financial viability assessment indicates that these could be financed.**

d. ~~Strongly~~ ~~encouraging~~ **Ensuring** all proposals for one or more dwellings and in particular residential development of 50 or more dwellings ~~to~~:

i. ~~Achieve zero net~~ **are zero carbon ready so that when the electricity grid is de-carbonised the development will not emit** carbon emissions;

ii. Maximise the use of on-site district heating and cooling systems, ~~especially~~ where these utilise renewable energy and

iii. Maximise opportunities to connect to wider heating and cooling networks both for energy supply and export, ~~especially~~ where these utilise renewable energy.

2. New non-residential development of 1,000m2 or more floorspace or with a gross site area of

1ha or more will achieve the BREEAM Excellent rating or equivalent standard within an alternative assessment endorsed by Shropshire Council.

3. Where changes to existing buildings, including extensions and alterations, are being undertaken, maximising opportunities to increase fabric energy efficiency, reduce carbon emissions and install and integrate on-site renewable energy technologies.

4. The requirements expressed in this policy will apply unless it is demonstrated through open book accounting that they would make the development unviable, having regard to the policy requirements of the Local Plan, in particular the delivery of affordable housing.

Appendix 1

Letter from the UK Green Building Council and others

The Rt Hon Michael Gove MP
Secretary of State for Levelling Up, Housing, and Communities
2 Marsham Street, London SW1P 4DF
Cc: The Rt Hon. Claire Coutinho MP, Secretary of State for Energy Security and Net Zero
Wednesday 27th March 2024

Dear Secretary of State,
Re: Future Homes and Building Standard (FHS) and Home Energy Model (HEM) consultations
As leading businesses and organisations involved in delivering new homes and buildings to high sustainability standards, we are writing with our view on the FHS and HEM consultations. We would like to meet you to discuss the consultations and are available to provide further information in addition to our organisational responses.

We support the following elements of the proposals which should be implemented without delay. We welcome the end of fossil fuel heating and commitment to electric heating. We support integrated on-site renewables for new homes, and the extension of energy efficiency measures for dwellings created under material change of use. We welcome the proposed HEM as a replacement for SAP.

However, this is not a definitive Future Homes Standard, but rather a positive step towards it. Many of us involved in the development of the Future Homes Hub's (FHH) five contender specifications [i] (CSP) are disappointed that the two weakest options are being consulted upon. We request a further iteration of the Standard be developed to ensure new buildings are of a higher specification by 2028. In this letter we set out immediate concerns to be addressed and outline why further development of the FHS is needed.
We have immediate concerns to be addressed in the 2025 regulations:

1. **We strongly disagree with the Option 2 notional specifications**. Omitting photovoltaics (PV) and lowering building fabric standards will lead to an additional £600-£700 per year on energy bills for residents of new homes compared to the current Part L 2021 and Option 1 respectively [ii]. The public sector equality duty ensures Government does not introduce standards which unduly affect those on lower incomes or with protected characteristics. A lower fabric standard would increase the pressure new homes place on the electricity grid at a time when the electrification of heat, transport, and industry means demand for electricity is expected to grow fourfold by 2050.[iii] All new homes should have integrated PV as standard to maximise available renewable energy, especially as the cost of installation continues to plummet [iv].

2**. We strongly disagree with the choice of Primary Energy over Delivered Energy**. We see no evidence provided to justify this choice, with 76% of respondents to the previous FHS consultation [v] opposing Primary Energy as a metric. The Climate Change Committee (CCC) supported Delivered Energy for domestic Energy Performance Certificates (EPCs) [vi]. The HEM

consultation discusses the use of Delivered Energy and a different metric for the FHS creates Government inconsistency and confusion. Delivered Energy should become the key metric in this Standard.

3**. We support voluntary post occupancy performance testing, but enhanced testing of buildings post-completion, or "As built" should be mandatory.** The proposal to ensure transparency on actual performance – acknowledged by Government as a key outcome for EPC reform following the 2021 consultation – is urgent. We support the introduction of performance testing, but a wholly voluntary approach will not provide the necessary protection from sub-standard build quality causing increased energy bills [vii]. In order to ensure a home's as-built thermal performance is as designed, mandatory performance testing needs to included using simple, low-cost, enhanced post-completion testing, such as short duration whole-house heat loss tests [viii]. In addition, more accurate post occupancy testing should be voluntary but incentivised.

There is a need to improve on the proposals for a higher standard which delivers on the FHS aims. The Written Ministerial Statement of 13 December 2023 seeks greater consistency between national and local energy efficiency. This could be addressed by Local Authorities, sector professionals and DLUHC co-developing and converging on a common definition of higher levels of performance during the course of 2024, based on the recommendations set out below, and could be used from 2025 onwards. This higher standard can then be used to inform the next iteration of building regulations by 2028. This needs to be signalled now by the Government, to avoid any negative impact on housing supply, as it will then be factored into land prices.

a) **Regulate embodied carbon in new buildings**. Embodied carbon makes up 20%[ix] of UK built environment emissions and declarations of whole life carbon are already required for large building projects. Policies to measure and limit embodied carbon and apply circular economy approaches within the construction sector are urgent and should be included in FHS.

b) **Improve fabric standards for U values and air tightness**. Alignment with current good practice can improve comfort and achieve a level of thermal resilience and stability to permit sufficient flexibility for grid peak load management [x] .The FHH CSP4 has just 25% of the home heating demand compared to FHS Option 1.

c) **Improve new home ventilation systems**. Research is urgently needed to determine if trickle vents with intermittent extract fans and with decentralised mechanical ventilation (dMEV) deliver the indoor air quality and comfort required [xi]. The limited evidence that exists suggest high instances of poor air quality, particularly in bedrooms [xii]. Should the research indicate poor air quality, and comfort, in use the FHS should mandate systems such as mechanical ventilation with heat recovery (MVHR) to deliver good air quality, reduce condensation and mould, and recirculate heat (as addressed in the FHH CSP3, 4, and 5).

d) **Reduce electricity generation investment required**. Improvements to building fabric and ventilation outlined above have been calculated to save circa £22.6 billion in electricity generation investment over 20 years compared to Option 1, and would result in a £190/year reduction in bills for occupants.

Higher standards will not limit housing supply. The FHS consultation stated concern that higher standards will increase costs and complexity for housebuilders and limit housing supply. Recent Government studies [xiii] [xiv] did not find higher standards to be a constraint on housing supply. The additional cost of CSP4, for a one-off 200 home site, compared to Option 1, was £13.8K[xv] per plot and will be considerably less when delivered at scale. This cost will be absorbed through adjustments to land values, as with previous regulation changes, not increasing householder costs and not limiting housing supply. Homes built to higher standards have shown to be feasible and viable at a local authority level across England, having passed tests of Local Plan inspection [xvi] [xvii] [xix].

Collaborating for better standards that really work. Lessons from the 2021 FHS pilots, and existing homes built to higher standards, should inform a future homes standard. We collectively bring knowledge and experience of building to higher standards, and offer practical justification for achievable standards which benefit industry and residents in line with net zero goals. We urge you to collaborate with us to develop the standard further.
We look forward to hearing from you. Please email larry@goodhomes.org.uk.

Yours sincerely,

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Sue Riddlestone OBE, CEO, Bioregional

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Simon McWhirter, Deputy Chief Executive & Director of External Affairs, UK Green Building Council

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Lynne Sullivan OBE, Chair, Good Homes Alliance

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Clara Bagenal George, Founder, Low Energy Transformation Initiative (LETI)

Organisation signatories

Developers:
- Cala Homes
- Elsworth projects
- FORE Partnership
- Greencore Homes
- Gusto
- KIN
- LOKI Architecture + Development
- Places for London - The TFL Development Company
- Pure Haus
- XERA

Local Authorities/Local Authority planning bodies:
- Camden London Borough Council
- Central Lincolnshire Joint Strategic Planning Committee

- Chelmsford City Council
- Cherwell District Council
- East Suffolk Council
- Essex County Council
- Forest of Dean District Council
- Greater Cambridge Shared Planning Service
- Rother District Council
- Southampton City Council
- Warwick District Council
- West Oxfordshire District Council
- Winchester City Council

Housing Associations:
- Forest Community Land Trust
- Hastoe Housing Association
- Peabody
- Sovereign Network Group

Non profit organisations/ NGO's/charities:
- AECB
- Alliance for Sustainable Building Products
- Architects Climate Action Network
- Association of Directors of Environment Economy Planning & Transport (ADEPT)
- Bioabundance Community Interest Company
- Brighton & Hove Energy Services Co-operative (BHESCo)
- British Blind and Shutter Association
- Bucks Climate Action Alliance
- Cambridge Retrofit Hub
- Canopy Housing
- Centre for Sustainable Energy
- Chartered Institute of Architectural Technologists
- Climate Action Menston
- Climate Action Now Risborough
- Climate Emergency UK
- Coaction Training CIC
- CPRE Oxfordshire
- ECO Action Windsor and Maidenhead
- Good Homes Alliance
- GreenBristol
- Greening Steyning, Bramber & Beeding
- Heating Bildeston
- Hedgerley Wood Trust
- Highgate Society
- Home Energy Action Lab
- Institute of Environmental Management and Assessment
- Insulated Render & Cladding Association
- Insultation Manufacturers Association
- Interior Design Declares
- IOM3 – Institute of Materials, Minerals & Mining
- Isle of Wight mission zero hub
- Low Energy Transformation Initiative
- Marlow Energy Group
- New London Architecture
- NW3 Community Land Trust
- Passivhaus Trust
- Quality of Life Foundation
- Rebel Farmer
- Rose Hill and Iffley Low Carbon
- Straw-Bale Building UK
- Sustainable Development Foundation
- Sustainable Haringey
- Sustainable Wantage
- Talking Tree CIC
- the Edge

• The John and Susan Bowers Fund
• Town and Country Planning Association
• Transition Bath
• UK Architects Declare
• UK Green Building Council
• UK100
• Water Mill
• Wiltshire Climate Alliance
• Winchester Action on the Climate Crisis (WinACC)
• Zero Carbon Haddenham

Architects and designers:
• Absolute Project Management
• AD Practice
• ADP Architecture
• Allford Hall Monaghan Morris
• Allies and Morrison
• Andrew Catto Architects Ltd.
• Andrew Hughes Architects
• Architecta Limited
• Architects In Practice
• Architype
• atelierhabitat
• AWW
• BDP
• Belsize Architects
• Berzins Architects
• Bird Architecture
• Bloom Architects Ltd
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• Charlie Luxton Design
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• Crow Architecture
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• Nicola Holden Designs Ltd
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• Paper Igloo Ltd.
• Phillips Architecture
• Pollard Thomas Edwards
• ECE Architecture
• Eco Design Consultants Ltd
• Feilden Clegg Bradley
• Gbolade Design Studio
• Grace Choi Architecture
• Greenfield Architecture
• GSD Architecture
• Habitat+ Architects
• Hawkins\Brown
• Haysom Ward Miller Architects
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• Hopkins Architects
• HTA Design LLP
• Jestico + Whiles
• Juliet Bidgood
• KAST Architects
• Levitt Bernstein
• Love Architecture Ltd
• LTS Architects
• M Reynolds RIBA
• Material Works Architecture
• Materialise Interiors
• MawsonKerr
• MEPK
• Miltiadou Cook Mitzman architects

• Prewett Bizley Architects
• Rees Pryer Architects
• Rivington Street Studio
• Rixon Architecture
• Sheppard Robson
• SimpsonHaugh Architects
• Solent Architecture
• Studio Bark
• Studio Gunn
• Studio Partington
• Studio Perrin
• STUDIO/gather
• Tasou Architects
• TP Bennett LLP
• Transition by Design
• Trewin Design Architects
• vHH
• Vincent + Gorbing
• Waugh Thistleton Architects
• West Waddy Architecture
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• Yappdesign ltd

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• Arup
• AVM Consult Ltd
• Beyond Carbon Associated
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• Delta Q
• DvJ Design Ltd
• Ecolytik Ltd
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• Elemental Solutions
• ERS Consultants Ltd.

- Etude
- Futureground
- GeoEnergy Design Ltd
- Green Peaches CIC
- Greengage Environmental Ltd
- Humblebee
- Inkling
- Inside Outside Engineering ltd
- Introba Consulting
- JL Enterprises
- KJM Ltd
- KLH Sustainability
- Lamorbey Associates
- Linktreat
- Marberg Ltd
- Max Fordham LLP
- Murton & Co Ltd
- NDM Heath Ltd.
- Net Positive Solutions
- Nordic Energy
- NuPlanet Sustainable Solutions
- NZA Consultancy Ltd
- Page\Park
- Planet 2030 Ltd
- Polaris Passivhaus Consult + Construct Limited
- Pope Consulting Ltd
- QODA Consulting
- Rapungi Ltd
- Riverway Group
- RTRFIT
- Self Sustaining Building
- Smart Energy Services
- Square Gain
- Stroma
- Sustainability By Design
- Traxis Group Ltd
- Urdal Power Solutions
- USUS Consulting Engineers Ltd
- Verte Ltd
- Vertigo
- WARM: Low Energy Building Practice
- William Saxby Ltd
- XCO2

Contractors:

• Carbon Rewind Ltd
• Cast Group
• EcoVert Solutions
• Melius Homes Limited
• Silen Construction Ltd
• Willmott Dixon

Manufacturers/suppliers:
• ECOLOGIC Sips
• Etopia Group
• HAUS
• Hemsec Manufacturing Ltd
• Internorm Windows UK Ltd
• Lowfield Timber Frames
• SIGA 1966 UK ltd. & SIGA Cover AG
• Smartlouvre
• Trust Electric Heating Ltd.
• Zimbl

Academic:

• Building Meaningful Futures
• Fuel Poverty Research Network
• High Performing Homes Ltd
• Leeds Sustainability Institute, Leeds Beckett University

Finance and technology:
• Sero
• Ecology Building Society

References

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