

**Wirksworth Transition Community Land Trust urges Derbyshire Dales District Council to use the opportunity of their Local Plan Review to introduce the highest possible environmental standards for new homes.**



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**SUMMARY**

As a charitable community land trust, we are committed to improving the energy efficiency of housing, new and existing. We do this because we know that the best possible energy efficiency in housing is an important priority for tackling both the climate crisis and the current cost of living crisis, which are related.

One way energy efficiency in housing can be improved is by the District Council revising the policies of their Derbyshire Dales Local Plan, which is currently being reviewed. (The deadline was recently extended to December 2023). The review includes entries about action on climate change and specifically mentions in policy PD7 “Securing energy efficiency through building design”.

We ask the District Council to strengthen housing standards by adopting a standard for zero carbon housing. We believe it should be the Passivhaus standard because it ensures the lowest energy demand – which requires the least need to purchase heating and is the most effective way to reduce fuel poverty very substantially. Obtaining Passivhaus standard adds to the building costs, but we offer the evidence that the costs as a percentage are coming down and are ‘paid for’ over the life of the houses. Achieving this standard from the start is also cheaper than more retrofitting in future.

We suggest the Council could use the Association of Environmentally Conscious Building (AECB) Building Standard as a temporary measure because it is somewhat less onerous and cheaper than Passivhaus but it uses Passivhaus methodology. This would give the construction sector more time to upgrade their skills. We suggest the Council start with social housing which would ensure giving priority and the most benefit to the neediest.

We provide information on other local authorities already embarking on this pathway, with references on the various ways they are doing so.

## FULL REPORT

### **1. The review gives DDDC the opportunity to:**

- 1.1 Demand higher energy performance standards on new developments.
- 1.2 Set out a standard for zero carbon homes.
- 1.3 Alongside strengthening the Local Plan's policies with regard to new building, we ask the Council to demonstrate its commitment to this aim by insisting that all social/subsidised housing provided in the district is built to its zero carbon standard.

### **2. DDDC Policy**

2.1 We appreciate that the current Local Plan gives priority to tackling climate change and the Council has recognised that their planning policies in this regard require review. Their policy PD7 should be strengthened to set out energy efficiency requirements for dwellings. This would enable planners to insist on higher standards. It would also continue the Council's trajectory towards a significant reduction in carbon emissions by 2050 (UK Government target for net zero). Policy PD7 also states that the Council will move to a low carbon future by several means including 'Securing energy efficiency through building design'. Setting out a clear explanation of its net zero standard would strengthen and clarify this policy.

### **3. Why do we need to deal with the issue of housing standards, and why now?**

- 3.1 There is a crisis in the affordability of energy costs which isn't going to go away.
- 3.2 This is directly linked to the challenge of getting to net zero carbon emissions.
- 3.4 It is layered on top of the well-recognised and growing problem where the cost of homes in Derbyshire Dales is well above the regional average.
- 3.5 Government's proposals for its Future Homes Standard are currently inadequate for solving the climate and cost of living crisis. (See under Costs/FHS below)
- 3.6 Most of our existing houses, which account for 18.5% of UK domestic buildings carbon emissions, will still be around in 2050 and consequently must be retrofitted to be much more energy efficient. For new build, the cost of 'getting it right now' is significantly lower than the cost of retrofitting at a later date.
- 3.7 There are also wider off-site benefits in terms of reduced infrastructure costs as less renewable energy generation will be required.

### **4. What should the standard be?**

We believe DDDC should adopt the Passivhaus standard for new housing. (See Costs below for a possible short-term interim standard.) The Passivhaus standard has the following benefits:

**4.1 Building performance:** Low energy demand; reduces performance gap; high levels of comfort; effective and healthy ventilation; higher performance building components; better site QA procedures resulting in better construction quality; lower risk of building fabric damage; resilient and future-proofed.

**4.2 Climate emergency:** Lower carbon emissions; lowers peak demand; lowers the overall requirement for renewable energy; more economical to save energy than to generate it; gives us the best chance of achieving net zero in buildings; enables decarbonisation without increasing fuel bills.

**4.3 Health and wellbeing:** Eliminates cold homes - and associated health impacts; guarantees good levels of ventilation – essential for health; reduces internal pollutants such as VOCs; deals with internal humidity - eliminates condensation and mould; improves quality of life for people with chronic illness or disabilities; protects against external air pollutants; reduces risk of airborne infection; reduces the impact of external noise.

**4.4 Social:** improved health & wellbeing of communities; reduced demand on health and social services; improved learning outcomes for children; economic stimulus of construction; upskilling of the construction workforce; clear statement of intent for transition to a net zero economy; demonstrates compliance with social value policies and targets; aligns with several UN Sustainable Development Goals.

**4.5 Financial:** Lower energy bills; rental - fewer and shorter void periods; reduces the extent and depth of fuel poverty; higher capital value 5-7%; lower maintenance costs; lower management costs; ability to access cheaper time of day tariffs; lower whole life costs; lower borrowing costs / green mortgages; ability to access cheaper green finance; holds value in the event of future carbon or efficiency legislation; lower risk of defects litigation; lower risk of repetitive damage due to quality issues.

## 5. What are the costs?

5.1 The capital cost uplift is likely to be modest.

5.2 Although actual building costs will depend on local factors, Passivhaus homes at 2019 cost +8% on construction, expected to fall to +4% if the standards are adopted at scale. (See

<https://www.readkong.com/page/passivhaus-construction-costs-october-2019-passivhaus-1255900> )

Given that 2019 Building Regulations have been superseded this difference is likely to have reduced.

5.3 The problem with the current version of the Future Homes Standard (FSH) is on air tightness. It leaves air tightness at the same level as at present, staying at 5m<sup>3</sup>/m<sup>2</sup>/@50pa, which is approximately five times worse than the Passivhaus requirement, probably because achieving the latter is difficult.

5.4 The toughest problem for builders inexperienced in this method is in achieving air tightness.

Understanding why air tightness is essential and taking great care with the detail do require explanation and support initially, but practice makes perfect.

5.5 The Association of Environmentally Conscious Building (AECB) has used Passivhaus methodology to create its own slightly less onerous standard (for example on airtightness), which it says could be used as a stepping-stone to Passivhaus to cover the transition in the skills required to achieve the higher air tightness target. (See here: <https://aecb.net/aecb-building-certification/>).

## 6. Why start with social housing?

6.1 We commend the work by DDDC with regard to its newly acquired council homes and its aspirations to provide more.

6.2 We ask that the Council requires all new social/subsidised homes to be built to its zero carbon standard because:

6.2.1 Occupants are more likely to be in fuel poverty and the highest energy efficiency reduces bills to very low.

6.2.2 The landlords are housing associations and councils who have an interest in reducing the long-term cost of the housing in maintenance, voids and rent arrears.

6.2.3 DDDC as housing and planning authority is in the best position to bring about an improvement in this type of housing, hopefully adding a stimulus to builders to upgrade their standards for mass-build commercial housing - the advantages of better and more comfortable housing will also create a demand from purchasers of mass-build houses.

### **7. Is anybody else doing this? Yes.**

7.1 These proposals are in step with other UK district councils (and social landlords) who are already working on achieving zero carbon homes, including integrating Passivhaus methodology into their Local Plans.

7.2 The Good Homes Alliance (GHS), a grouping of professionals, developers, suppliers, universities and local authorities who are pursuing housing quality, have a Build Net Zero Now campaign. (See here: <https://goodhomes.org.uk/campaign/build-net-zero-now>.)

7.3 GHS includes a Vanguard Network for Local Authorities to share resources and conduct further research to facilitate adopting enhanced sustainability, quality and performance standards for new housing developments.

(See here: <https://goodhomes.org.uk/vanguard-network> ).

7.4 GHS also includes a Pathfinder Network for Housing Associations. (See here: <https://goodhomes.org.uk/pathfinder-network>)

7.5 The Passivhaus Trust UK has also produced a report on 'Local Passivhaus policies' (which covers all local authorities they know of, not just those in the Good Homes Alliance). (See here: <https://www.passivhaustrust.org.uk/news/detail/?nid=1079>.)

7.6 This collaborative approach is becoming increasingly common across the UK, with pioneering guidance and policies issued by Herefordshire and West Oxfordshire District. But as far as we are aware, no other Derbyshire councils are pursuing a net zero carbon standard seriously – Derbyshire Dales is ideally placed to be the county leader.

### **8. Conclusion**

8.1. Moving this issue forward is urgent.

8.2 Derbyshire Dales District Council as housing and planning authority is in a good position to implement policies which drive towards a Passivhaus equivalent standard for all new housing.

8.3 They can also improve the standards of social housing as a policy which dovetails with the revised Local Plan.

8.4 This is a step-change towards improving all our houses and one for which future generations will thank us.

**9. Key reference sources are listed below.**

9.1 CCC (2019) Climate Change Committee. UK Housing: fit for the future?

Page with downloadable document: <https://www.theccc.org.uk/publication/uk-housing-fit-for-the-future/>

9.2 Passivhaus UK Trust. Passivhaus Construction Costs (2019)

Page with pdf: <https://www.readkong.com/page/passivhaus-construction-costs-october-2019-passivhaus-1255900>

9.3 AECB Building Standard: <https://aecb.net/aecb-building-certification/>

9.4 Passivhaus UK Trust: Local Passivhaus policies

<https://www.passivhaustrust.org.uk/news/detail/?nId=1079>

9.5 Herefordshire Council. Herefordshire Future Homes – Net zero carbon housing standard (Updated October 2021) Page with downloadable document: <https://www.herefordshire.gov.uk/directory-record/6406/herefordshire-future-homes>

9.6 West Oxfordshire District Council. Net Zero Carbon Toolkit.

Page with downloadable document: <https://www.westoxon.gov.uk/environment/climate-action/how-to-achieve-net-zero-carbon-homes/>

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