

UK100 is a network of local leaders who have pledged to lead a rapid transition to Net Zero in their communities ahead of the government's legal target. UK100 is a cross-party membership organisation with members across the UK.

The UK has some of the oldest and leakiest housing stock in western Europe, with buildings accounting for around 17% of the UK's emissions, making it the second largest source of emissions. Enhancing the efficiency and sustainability of the building stock is pivotal to achieving the Net Zero target.

The delay in the Future Home Standards has caused much frustration across the network, and we have lost nearly a decade of low carbon homes, with many homes built that will need to be retrofitted. We cannot afford to lose this opportunity to deliver a future-proof home standard that will not be out of date on arrival.

At UK100, we have reviewed the consultation and believe it is a much needed improvement on current settings, however, we have several concerns. We have surveyed our members and our response reflects the views of our membership.

Based on the phrasing of the questions, it appears that the government fears high standards will restrict housing supply, however, UK100 members have not found this to be the case. On the contrary, local authorities find strong standards are welcomed by their constituents and stakeholders, and setting higher standards has not withdrawn support by builders. The market can and has adapted to stronger Net Zero standards.

UK100 has seven concerns:

1. **Ambition Level:** The government has proposed two main options, neither of which we consider ambitious enough to genuinely future-proof new homes. If pushed, we agree with option 1 but believe it could go further on mandating solar (within limits), setting in-use energy targets and introducing whole life carbon assessments.
2. **Fabric Efficiency:** The fabric efficiency standards should be increased, while ensuring sufficient flexibility to accommodate variations for heritage buildings, which may require additional considerations such as increased ventilation for example.
3. **Performance Metrics:** There is growing consensus amongst stakeholders that the performance metrics are not fit for purpose, and should be replaced

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with energy use intensity (EUI) based on actual metered energy use as the primary compliance metric, rather than theoretical primary energy factors.

4. Embodied Carbon: Disappointingly, the proposals lack any provisions to address and reduce embodied carbon emissions from construction.
5. Viability: We oppose the ability for developers to use viability assessments to avoid meeting the full Future Homes Standard requirements.
6. Post-Occupancy Evaluation: Mandatory requirements for post-occupancy evaluation and performance testing should be introduced to ensure standards are genuinely met.
7. Local Planning Authority Powers: Clarity is needed on whether the Future Homes Standard represents a ceiling that cannot be exceeded locally, or if planning authorities can set more ambitious local standards. It is unequal that developers can potentially deliver below the standards, but local authorities cannot set higher standards.

The consultation offers only two options for performance requirements for new dwellings. We strongly disapprove of this form of consultation, because it only offers a binary option of what our members consider weak options. UK100 members have developed local plans that are above the proposed standards, both options are a step down in future ambition and current capability.

Of the two options, option 1 is superior because the inclusion of solar panels will lead to more carbon savings and lower bills to residents.

We strongly disagree with option 2. In order to avoid repeating the mistakes made with housing insulation – a major financial burden and difficult policy to implement – it would be prudent to set high standards upfront. This would benefit public finances and preclude the need for lengthy and costly retrofitting programs in the future. While option 2 provides cheaper short-term building costs, it will require eventual capital outlays over time for both our members and the wider UK if they have to be retrofitted in the future. The slightly higher upfront costs would be paid back through cheaper energy costs well before the end of the mortgage repayment period. It also bakes inequality into the housing stock, saddling owners of lower-standard homes with higher energy bills and greater carbon impacts.

Solar panels, energy storage, and insulation form the triumvirate of housing energy efficiency and should be standard for Future Homes. Our members strongly believe solar power should be mandatory unless absolutely technically

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infeasible. Where constraints prevent compliance, proposals should aim to meet high heating and total energy consumption thresholds. In the Future Home Standards Impact Assessment, the government expects solar costs to fall 60% within 5 years¹. The International Renewable Energy Agency expects PV solar costs to fall 59% by 2025². It would be remiss not to include PV in new builds. As solar costs continue to fall, the mandatory inclusion of solar will be seen as obvious in hindsight.

Our members support the recommendation by LETI and UK Green Builders Council to improve fabric performance of homes to include U-values and air tightness, in line with the Climate Change Committee's recommendations limiting heat demand to 15-20kwh/m²/year.

UK100 are disappointed the Future Homes Standard (FHS) does not include embodied carbon, this was an opportunity to redress a policy gap at the national level to set consistent standards. Our members have set embodied carbon guidelines but without national standards cannot set targets. For new builds, embodied carbon can account to up to half of the carbon impact of the building over its lifetime³.

The performance metrics are not fit for purpose and should be withdrawn and replaced with Energy in Use metrics (EUI). All predictive models are inaccurate, some are more inaccurate than others. From what's designed to what's implemented are two very different things, and net zero will not be met with good intentions. Often buildings consume more energy in operation than what was estimated in the design stage, on average buildings consume 25% more than anticipated, in some cases using 250% more than initially predicted.⁴. In order to properly capture the carbon of buildings, the performance metrics should measure what is actually used. To ensure this, the FHS should encourage smart meters.

To ensure that standards are truly achieved, mandatory post-occupancy evaluations and performance testing requirements should be implemented. Caution should be taken to ensure that the requirements are not onerous, but rogue builders delivering substandard work should face sanctions and penalties.

¹ <https://assets.publishing.service.gov.uk/media/5d976b8ce5274a595bf5da8a/REQUEST.pdf>

² <https://www.iene.eu/irena-forecasts-59-solar-pv-price-reduction-by-2025-p2740.html>

³ <https://www.rics.org/profession-standards/rics-standards-and-guidance/sector-standards/construction-standards/whole-life-carbon-assessment>

⁴ https://www.energy.gov.au/sites/default/files/the_building_energy_performance_gap-an_international_review-december_2019.pdf

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Members of UK100 are particularly disheartened by the ability for builders to use viability assessments to circumvent the standards. Not only would this undermine Net Zero efforts, but it also places an undue strain on councils already operating with limited resources. A mere one in ten councils have fully staffed planning departments, leaving the door open for unscrupulous builders to leverage their relative financial power and lobby for lower standards. It is inherently unfair that builders can pursue substandard options, while councils are bound by the December Written Ministerial Statement, prohibited from exceeding the mandated standards.

UK100 urges the government to support local authorities and green builders in their ambition, and ensure the Future Home Standards is a floor, not a ceiling on building standards for local plans.

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