

Set actual energy performance targets for buildings

The Building Regulations suggest a reduction in performance relative to a prescribed notional building. The notional building does not reward efficient building form and orientation.

We must move towards setting actual energy consumption requirements, measured in energy use intensity (EUI), in kWh/m²/yr. This would encourage architects, engineers, developers and building owners to work together, be innovative and reward good design based on form, orientation and fabric performance.

Ensure new buildings are really on track for net zero carbon, with low energy demand and no fossil fuels

The Future Buildings Standard consultation states that new buildings should be “zero carbon ready”. However, to help address the climate emergency we must ensure we are constructing “net zero carbon buildings”.

Net zero carbon buildings seek to balance operational energy consumption with the UK grid renewable energy capacity. This means they should minimise their energy demand, including all energy uses. Government must set adequate energy targets to ensure both energy demand and energy consumption are reduced.

Assess building performance better to close the performance gap

We have known for many years there is a gap between anticipated and actual performance of buildings. The current tools used to assess a building’s compliance, such as Simplified Building Energy Model (SBEM) and Standard Assessment Procedure (SAP), do not accurately predict actual operational energy or carbon performance. Therefore, they are an inappropriate methodology to reduce the climate impact of the built environment.

There needs to be better enforcement of regulatory requirements. In addition, Post Occupancy Evaluation methods associated with regulated predicted performance requirements must be used to improve predictive energy modelling through verification and comparison in use. Without checking how buildings actually perform, the industry is relying on unverified predictions of performance.

Introduce and regulate embodied carbon targets for buildings

The carbon emissions from a building’s operational energy use make up only a portion of the carbon emitted across its entire lifecycle. There are significant carbon emissions embodied in the materials used to produce, operate and maintain buildings. However, the Future Buildings Standard consultation does not address this.

Government must phase in requirements for the consistent assessment and reporting of whole life carbon and set targets for embodied carbon, which is the emissions associated with materials, construction, refurbishment and disposal, and these should be regulated.

We believe passionately that Government has a key role to play in setting ambitious standards to ensure that we meet our climate commitments and preserve the planet for future generations.

Yours faithfully,

Active Building Centre
Architects Climate Action Network (ACAN)
Architects Declare
Association for Environment Conscious Building (AECB)
Building Performance Network (BPN)
Chartered Institute of Building (CIOB)
Chartered Institution of Building Services Engineers (CIBSE)
E3G
Energy Saving Trust
London Energy Transformation Initiative (LETI)
Friends of the Earth
Good Homes Alliance
Greenpeace
MCS Foundation
National Energy Foundation (NEF)
New London Architecture (NLA)
Passivhaus Trust
Royal Institute of British Architects (RIBA)