

Jeremy Pocklington  
Permanent Secretary  
Ministry of Housing, Communities and Local Government  
2 Marsham Street  
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United Kingdom

Tuesday 13 April 2021

Dear Permanent Secretary,

### **Future Buildings Standard consultation**

As representatives of professionals in the built environment and organisations with a significant interest in ensuring the UK reaches net zero by 2050, we are writing to you to highlight our shared concerns on the current version of the Future Buildings Standard.

We welcome the direction of travel shown by many of the measures proposed and the Government's ambition to reduce the impact of buildings on the environment. However, the built environment is responsible for around 40% of global carbon emissions and we believe Government has a key role to play in setting adequate standards to reduce this impact.

We believe that there are several additional areas that are critical to success in achieving the UK's net zero ambition, and with the right decisions, the UK can demonstrate global leadership and create a world-leading built environment sector.

To achieve this, the Government must:

### **Start regulating total energy consumption and not introduce primary energy**

The Future Buildings Standard proposes using primary energy as the principal performance metric in the Building Regulations and we do not believe this is the appropriate approach. Primary energy is a complex metric with factors that change over time. Primary energy will become less relevant as the electricity grid decarbonises. Primary energy also favours gas over electricity, going against heat decarbonisation objectives.

Instead, we must start regulating the amount of energy used by a building. We suggest that operational energy becomes the key metric. The metric is already well known and understood within the sector as well as by building owners and occupiers. We must use operational energy from 2021 and not introduce primary energy as the principal performance metric.

Using operational energy as the key metric would also allow for benchmarking and minimum standards to be easily established based on building type, driving further innovation within the built environment.

## **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/m<sup>2</sup>/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.

## **Set a clear National Retrofit Strategy**

Current retrofit standards lack vision and ambition. We need Government to set a National Retrofit Strategy with adequate funding and clear roadmap for action. This must include a whole building retrofit approach and a commitment to reviewing the Building Regulations for existing buildings in 2025.

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)  
Royal Town Planning Institute (RTPI)  
The Alliance for Sustainable Building Products (ASBP)  
UK Green Building Council (UKGBC)