The Future Building Standard Consultation Response

How to Guide

A guide to taking action and formulating your response to the Future Building Standard consultation

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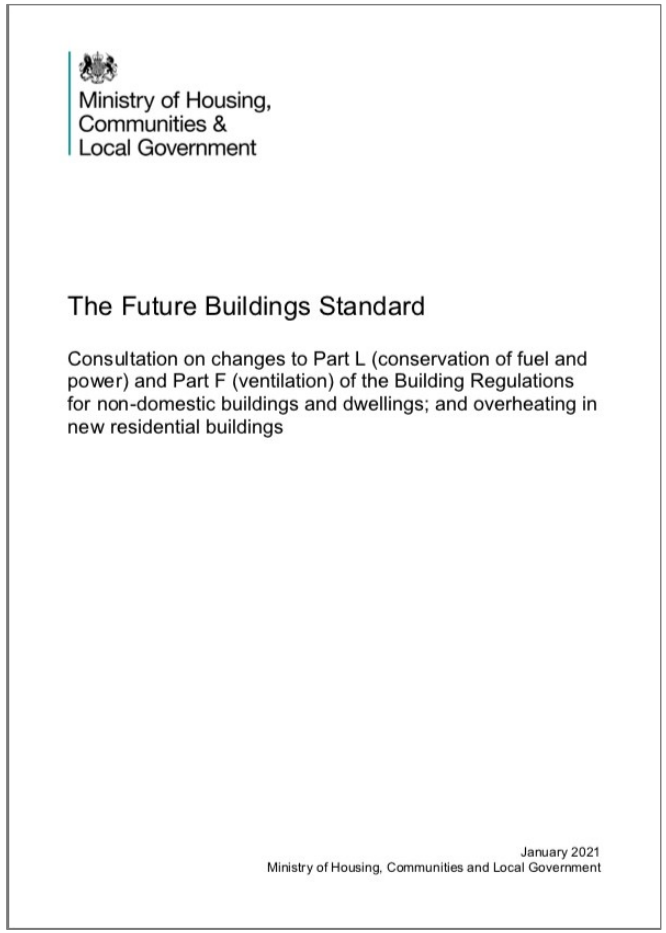
LETI want to accelerate the transition to lower carbon buildings from 2021 and believe that the 2025 standards should be the '**net zero carbon building standards**'.

If **you** share this view we encourage you to respond to the Future Buildings Standard consultation.



Ministry of Housing, Communities & Local Government

The Future Buildings Standard

Consultation on changes to Part L (conservation of fuel and power) and Part F (ventilation) of the Building Regulations for non-domestic buildings and dwellings; and overheating in new residential buildings

January 2021
Ministry of Housing, Communities and Local Government

Key messages

The ambition is positive

MHCLG have a clear aspiration that new buildings from 2025 should not need to be retrofitted to meet zero carbon by 2050.

Better prediction of energy use is crucial

- Predicted energy use calculations need to be required for new homes, not just new non-domestic buildings.

Overheating should be simple but effective

- It is positive that a regulation on overheating is introduced, however the simplified method may lead to unintended consequences, such as under-glazing and poor daylight in some homes, or over-glazing and overheating in others.
- Protection from falling should not unreasonably dictate window size and opening portions.

We need better metrics

- Primary energy is proposed as the new key metric. It is complicated, favours gas and becomes increasingly irrelevant as the grid is further decarbonised. It should be replaced by energy use intensity.
- The notional building should not be used anymore.
- Embodied carbon should be introduced from 2025 at the latest.

Fabric performance

- Homes - Great that FEES have been retained but it needs to be a better performing target than suggested.
- Standards should incorporate more ambitious requirements for airtightness and MVHR.

Closing the performance gap

- Energy use disclosure has not been included and should be required.

We need a much better non-domestic modelling method

- NCM underestimates space heating demand.

We should accelerate the move away from fossil fuels

- Moving away from gas boilers should be incentivised in 2021 and new gas boilers should be banned from 2025.
- The proposed carbon reductions for 2021 are not sufficient.
- The decarbonisation of heat networks needs to be incentivised.

Retrofit standards lack vision and ambition

- A retrofit approach consistent with PAS 2035/38 should be required.
- There should be a 2025 roadmap for retrofit standards.

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Please respond to the consultation

Influencing the building regulations may be the **greatest impact** that you have in your career, **please respond to the consultation**.

Go to https://www.gov.uk/government/consultations/the-future-buildings-standard to complete you consultation response by the **13th of April,** you can do this as an individual or on behalf of an organization.

Last year MHCLG released a consultation on the Future Homes Standard, circa 3000 responses were received, a massive increase compared to the circa 400 responses in 2012. FEES was retained and local authorities kept the power to set higher energy standards than regulation.

If you have 10-15 mins

Use the "LETI – short consultation - Yes/ No responses" document, available at www.leti.London/part-I which outlines the key questions that LETI think are the most important. If you have a little more time explain your reasoning behind each answer.

Completing a full consultation respnce

See www.leti.London/part-I for our 'work in progress' draft full response, which you might find helpful to reference when putting together your response.

Help up build an evidence base

We are also encouraging the network to provide relevant evidence based on SBEM modelling if they can and that is something we are looking at gathering in the next couple of weeks from the LETI network on a number of subjects. **MHCLG have told us that this is the key action that will have the most influence.**

We are gathering evidence relating to:

1. SBEM modelling – Proposals for the 2021 regulations

- What will it incentivise, as the notional building changes its system type based on the actual building?
- Understanding the impact of the district heating proposals

2. Primary Energy

- Does it have detrimental consequences, such as incentivising gas?
- Does it protect fabric? Could this be achieved a different way

3. Space heating demand

4. Overheating

5. Airtightness and MVHR

6. Homes - What does FEES for 2021 really mean?

7. Many new homes have the wrong shape

Click here for more information and to sign up to help create this evidence base

LETI approach

The following slides compare what LETI believes is required to achieve net zero carbon buildings and meet the climate emergency to the proposals outlined in the consultation.

Regulation

Best practice

Relative

%

Reduction in CO_2 emissions over notional building

Comparison with fixed building specification

Permits inefficiency in building form

Adversely influenced by fuel supply

Absolute

kWh/m²/yr

Energy use intensity
(EUI)

Measures energy ‘at the meter’

Influenced by efficient design

Energy supply agnostic

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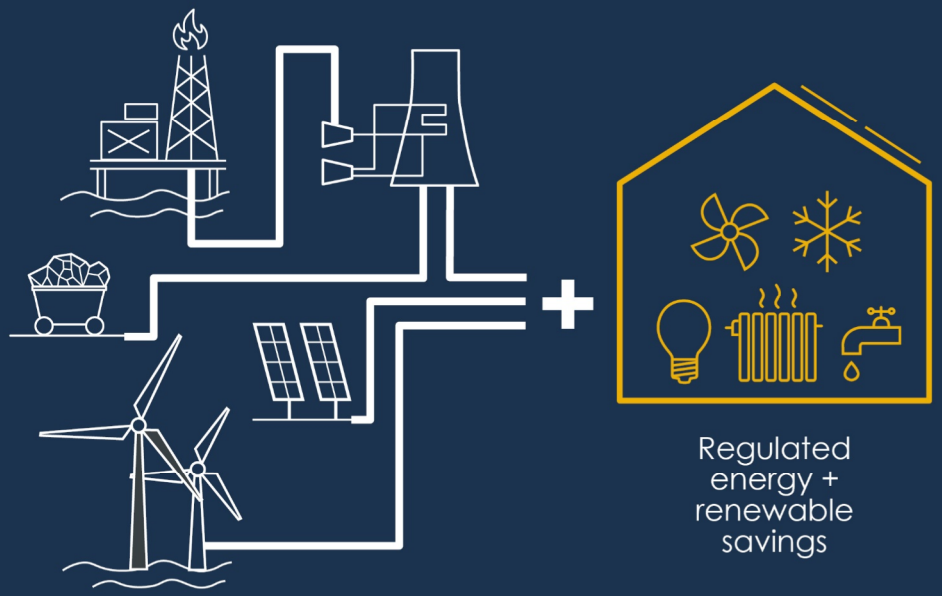
Regulation

Primary energy



Regulated energy + renewable savings

Energy associated with fuel production, energy generation and distribution processes, including losses

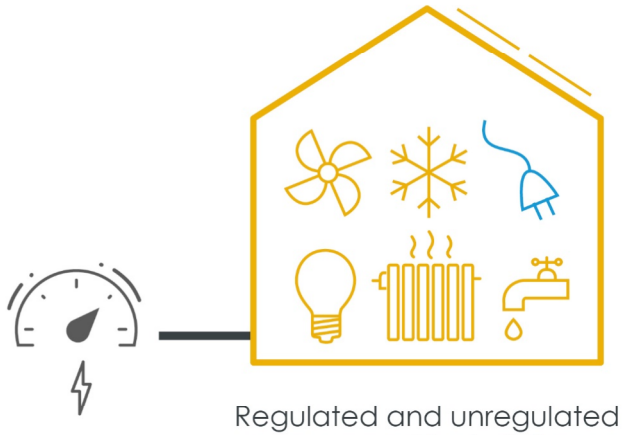
Complex metric

Factors which change over time

Increasingly irrelevant as the grid is further decarbonised

Best practice

Total energy



Regulated and unregulated energy used by building + renewable savings

Absolute metric

Total energy consumed/exported 'at the meter'

Grid energy agnostic

Influences efficiency of building

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Regulatory calculation

SAP/SBEM modelled building

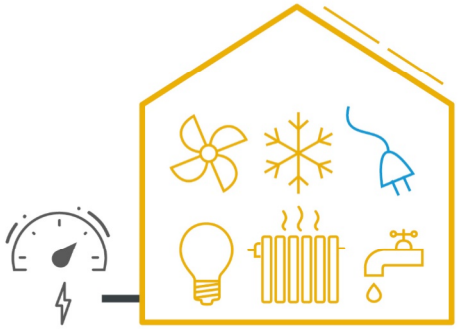
Performance in-use

Not comparable to performance of building in-use

Performance gap between design and as-built

Predictive performance

Predictive energy modelling



Performance and verification in-use

Predictive energy modelling

Reduced performance gap

Allows for monitoring and comparison in-use

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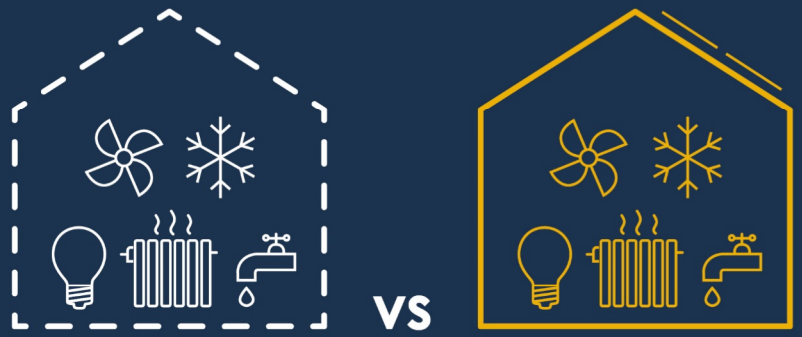
Regulation

‘Zero carbon ready’



Notional building

Designed building

Designed building is 75-80% better than notional

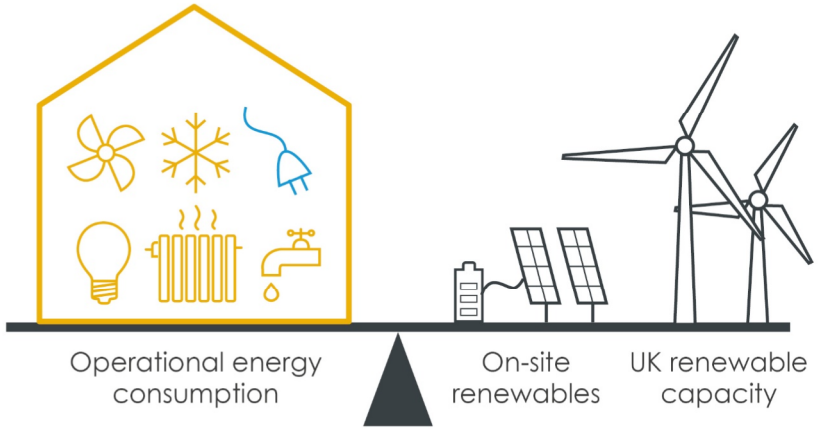
Percentage better than a fictional building

Not related to renewable energy capacity on the grid

Regulated energy only

Best practice

‘Net zero carbon’



Balances energy consumption with UK grid capacity

Building meets LETI EUI target

Ensures reduced energy demand

Includes all building energy uses

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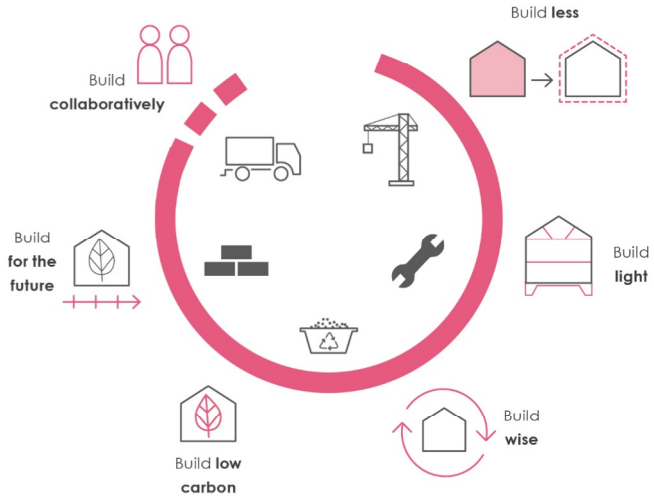
Regulation

No mention of embodied carbon

Currently not included or proposed in regulation

Best practice

Embodied carbon targets



Building should meet LETI embodied carbon targets

Scope of the assessment should cover substructure, superstructure, MEP, facade and internal finishes

Reuse and disassembly to be encouraged

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