

A detailed architectural wireframe of a modern house, showing the structural frame, walls, windows, and furniture like a dining table and chairs. The drawing is rendered in thin black lines on a white background.

**IN BRIEF: THE FUTURE
HOMES STANDARD 2025
AND PART L 2021**

Introduction

The Future Homes Standard will come into effect in England in 2025. Its purpose is to ensure that new build houses are future-proofed with low carbon heating and “world-leading levels of energy efficiency” by embracing smart and low carbon technologies.

In this paper, we explore the background to the Future Homes Standard and the proposed interim uplift to Part L of the Building Regulations. It's important to note that the changes discussed in this document are only proposals at this stage and are therefore subject to change.



Background to the Future Homes Standard

In June 2019, the UK became the first major economy to pass net zero emissions by 2050 into law. As the heating and powering of the built environment account for 40% of the UK's energy usage, it is understandably earmarked for significant change if net zero emissions is to be achieved within the next 30 years.

In its pursuit of this aim, in October 2019, just five months after making its net zero commitment, the government released the first stage of a two-part consultation to improve the energy efficiency of England's Buildings: The Future Homes Standard (FHS) - a consultation on changes to Part L (conservation of fuel and power) and Part F (ventilation) of the Building Regulations for new dwellings.

Some 3,300 responses to the consultation were submitted from a variety of sectors with an interest in construction, including developers, architects, engineers, planners, academics. In January 2021 – delayed somewhat as a result of the coronavirus pandemic – a summary of the responses received along with the corresponding government response, was released at the same time as the second stage of its consultation: The Future Buildings Standard (FBS), which addresses non-domestic buildings and existing domestic dwellings.

Within its introduction to the FHS consultation response, the government explains that the changes proposed in the FHS and FBS “... provide a pathway towards creating homes and buildings that are fit for the future, a built environment with lower carbon emissions, and homes adapted to the overheating risks caused by a warming climate.”

Through the introduction of the FHS, the government intends to ensure that, from 2025, an average home will produce 75% lower CO₂ emissions than one built to current energy efficiency requirements with no retrofit work necessary

This is clearly a long and in-depth process that will also see the release of consultation documents for other, related, standards.



Part L 2021

The proposed uplift to Part L of the Building Regulations is designed to pave the way for the more stringent changes that will be introduced through the FHS in 2025. It will require at least a 31% reduction in emissions compared to current standards.

While many responding to the FHS standard believe the proposed uplift to Part L doesn't go far enough, it is certainly a step in the right direction and gives industry time to prepare for the changes ahead. The government stated, *"We must ensure that all parts of industry are ready to meet the FHS from 2025, which will be challenging to deliver in practice, by supporting industry to take a first step towards the new standard"*.

It's worth noting that the government is seeking to balance achieving net zero emissions with its goal of building 300,000 homes a year by the mid-2020s.

The uplift to Part L is designed to deliver high-quality homes that are in line with the government's housing commitments and are future proofed. This objective will be supported by:

- A revised package of performance metrics that ensure a fabric first approach is at the heart of all new homes alongside a low carbon heating system. The Fabric Energy Efficiency Standard will be one of four performance metrics;
- Improved compliance and a reduction in the performance gap; and
- Transitional arrangements to ensure as many new homes as possible are built to the new energy efficiency standard



Part L Performance metrics

A revised set of performance standards for new homes is proposed for Part L 2021.

Current Part L 2013 metrics	Proposed Part L 2021 metrics
<ul style="list-style-type: none"> I. CO2 emission target II. Fabric energy efficiency target III. Minimum standards for fabric and fixed building services 	<ul style="list-style-type: none"> I. Primary energy target II. CO2 emission target III. Fabric energy efficiency target IV. Minimum standards for fabric and fixed building services



i. Primary energy target

Primary energy use is a measure of the energy regulated by the energy efficiency requirements of the Building Regulations, such as lighting, heating and hot water. The calculation takes account of efficiencies and energy uses, including:

- The efficiency of the property's heating system;
- Power station efficiency for electricity; and
- The energy used to produce the fuel and deliver it to the property.

A primary energy metric therefore provides a measure of the energy use in dwellings and takes account of upstream energy uses. The government hopes this will ensure that new homes are energy efficient and making good use of national energy resources regardless of wider progress towards decarbonising the electricity grid.



ii. CO₂ emission target

As a consequence of the ongoing decarbonisation of the UK's electricity grid, CO₂ emissions will become a less effective measure of the energy performance of buildings. However, they will continue to be a performance metric in order to encourage low carbon choices when designing new homes and to track progress against the UK's net zero target.



iii. Fabric energy efficiency target

The government considers the principle of a fabric-first approach to be sound and will use it to inform their approach to Part L 2021 and transition to the FHS in 2025. However, it is currently consulting through the FSB consultation whether a more demanding Fabric Energy Efficiency Standard would mean better fabric standards for new homes and may therefore support a smoother transition to the FHS.

iv. Minimum standards for fabric and fixed building services

Minimum standards for thermal elements as proposed in the Future Homes Standard consultation will be introduced with the aim of removing the worst performing 25% of each thermal element currently being built.

The government anticipates that the Fabric Energy Efficiency Standard proposed in the Future Buildings Standard consultation, combined with the minimum fabric standards, will drive high overall fabric standards in new homes, while allowing some flexibility in how the Target Fabric Energy Efficiency Rating is met. Minimum U-values for thermal elements will continue to be set within the Approved Document.





Bridging the performance gap

The government recognises that there is a gap between the design intent and actual built performance and so intends to introduce guidance to make it clear how to meet minimum standards by avoiding common issues that contribute towards creating a performance gap. To this end, a number of measures will be introduced or updated, including:

- **Build Quality guidance** – this will be amended to include an introduction outlining the scope and purpose of the Build Quality guidance and reference to the Local Authority Building Control (LABC) construction details library.
- **BREL** - a new compliance report called the Building Regulations England Part L (BREL) report will be introduced to achieve a more unified approach by providing building control bodies with the same clear information for every home. The report will be produced using the information from the SAP and will have to be signed by the energy assessor and the developer to confirm that the as-built calculations are accurate.
- **SAP** – BREL will be incorporated into the latest version of SAP – SAP 10.3 – which is to be released alongside the Part L uplift at the end of 2021.
- **PSI** – There are no changes to the Psi values or the way they are measured; however, there will be more focus on them because of the changes to BREL and SAP.



Transitional arrangements

The government wants as many homes as possible to be built to the Part L 2021 uplift standards. As such, transition arrangements will apply only to individual buildings rather than a whole site as has been the case previously. Within the consultation document, the government has provided the following outline of the transitional arrangements in practice:

- For transitional arrangements to apply to an individual building, developers will need to both:
 - i) Submit a building / initial notice or deposited plans by June 2022; and
 - ii) Commence work on each individual building by June 2023.
- Where notices or plans are submitted after June 2022, transitional arrangements will not apply, and homes must be built in line with 2021 Part L standards.
- Where notices or plans are submitted before June 2022 but work on any individual building does not commence by June 2023, the uncommenced buildings must build in line with 2021 Part L standards.
- No individual building will need to change once building work has commenced, in line with the definition on commencement below, as long as work commences within the reasonable period. However, developers will need to plan their sites appropriately and if work on a building commences outside of the reasonable period, they will need to ensure that it is compliant with new standards.
- For the purposes of transition, commencement will not change from the existing 2013 definitions:
 - i) Excavation for strip or trench foundations or for pad footings.
 - ii) Digging out and preparation of ground for raft foundations.
 - iii) Vibrofloatation (stone columns) piling, boring for piles or pile driving.
 - iv) Drainage work specific to the building(s) concerned.

Backstop Values

Below are the expected backstop values for the Future Homes Standard, Part L 2021 and, for comparison, the backstop values for Part L: 2013

		Part L 2013	Part L 2021
Walls	New fabric elements in new dwellings	0.3	0.26
	New fabric elements in existing dwellings	0.28	0.18
Floors	New fabric elements in new dwellings	0.25	0.18
	New fabric elements in existing dwellings	0.22	0.18
Party walls	Unfilled cavity with no effective edge sealing	0.5	0.5
	Unfilled cavity with effective sealing around all exposed edges and in line with insulation layers in abutting elements	0.2	0.2
	A fully filled cavity with effective sealing at all exposed edges and in line with insulation layers in abutting elements	0	0
Air permeability	m ³ /h.m ² @ 50Pa	10	8
	m ³ /h.m ² @ 4Pa	N/A	1.57

N.B. Depending on a building's construction type, lower U-values than those shown above may be required to meet the SAP

Timeline



**ARE YOU
READY FOR
2025?**

1. Spring 2019

Government announces introduction of a Future Homes Standard by 2025 "so that new homes are future-proofed with low carbon heating and world leading levels of energy efficiency."

2. June 2019

UK becomes first major economy to pass into law net zero carbon emissions by 2050

3. October 2019

Government releases the Future Homes Standard (FHS) - a consultation on changes to Part L (conservation of fuel and power) and Part F (ventilation) of the Building Regulations for new dwellings; it's the first stage of a two-part consultation to improve the energy efficiency of England's Buildings

4. January 2021

Government releases its response to the FHS consultation and The Future Buildings Standard, a 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.

5. Late 2021

Subject to the outcome of the FSB consultation, the government is aiming for the interim Part L (Conservation of fuel and power), Part F (Ventilation) and Overheating Regulations outlined in both consultations, with associated guidance, to be regulated for in late 2021.

6. June 2022

Part L, Part F and Overheating Regulations will come into effect. Developers must submit building notice/initial notice or deposit plans by June 2022 for transitional arrangements to apply.

7. Ongoing

Engagement with industry and development of technical guidance

8. Spring 2023

A full technical consultation on the Future Homes Standard is planned for spring 2023 with consideration of appropriate transitional arrangements.

9. 2024

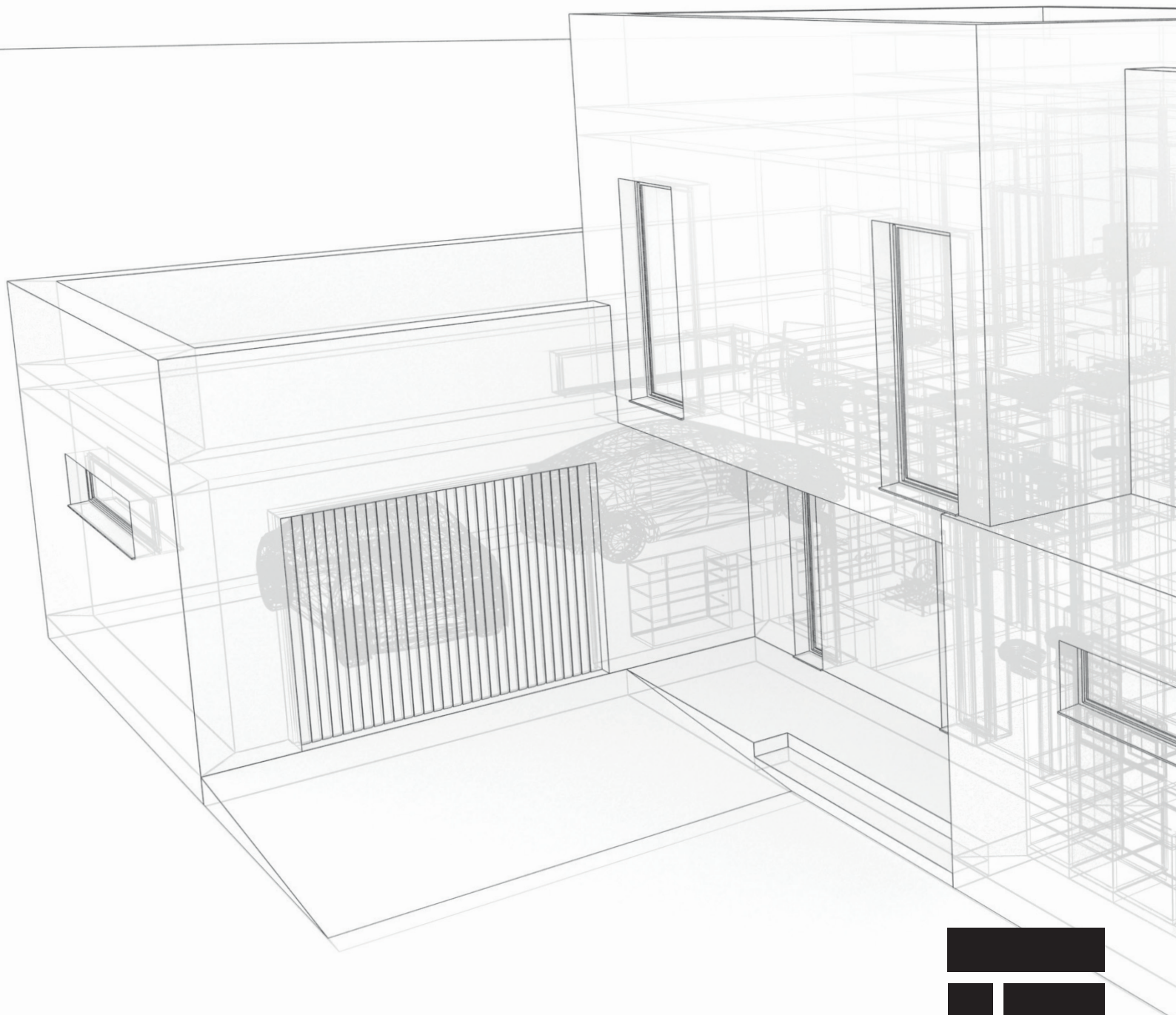
Future Homes Standard legislated for

10. 2025 FUTURE HOMES STANDARD IMPLEMENTED

Forterra technical support

Forterra's experienced technical team are on hand to answer your questions at every stage of your build. They can advise on product performance, provide technical specifications and product declarations for Forterra products, and arrange official U-value assessments.

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