

The Future Homes Standard (FHS) explained

Keys Points

- **The Future Homes Standard (FHS)** comes into force in England on March 24, 2027 and mandates that all new homes produce 75–80% fewer carbon emissions compared to 2013 standards, ensuring they are "Zero Carbon Ready" homes.
- **Mandatory Low-Carbon Heating:** Heat pumps will replace traditional gas boilers which will effectively be banned in new homes.
- **Energy Efficiency:** New buildings must have high-performance fabric (Part L 2021 fabric standards+) to minimize heat loss.
- **Solar Panels:** Photovoltaic Panels Equivalent to 40% of the ground-floor area will be mandatory for new homes.
- **Transition Period:** Regulations were laid before Parliament on 24 March 2026 until 24 March 2027 when the FHS comes into effect on all new homes.
- **Transitional Arrangement:** A 12-month transition period commencing 24 March 2027 until 24 March 2028 will allow registered homes to continue to be built to previous standards to 'completion of slab' stage.
- **Assessment Method:** Energy Calculations and certification will be delivered via the new Home Energy Model (HEM), which will eventually replace Standard Assessment Procedure (SAP) 10.3.

What is the Future Homes Standard?

The UK became the first major economy in the world to formally legislate a legally binding target to achieve 'net zero' greenhouse gas emissions by 2050. This requirement came from an amendment to the [Climate Change Act 2008](#) following the '[Paris Agreement](#)' at the UN Climate Change Conference (COP21) in Paris, France, in December 2015 which moved the goal from 80% to 100%. Government announced in its [2019 Spring Statement](#) a commitment to introduce the FHS by 2025, ensuring that all new homes would be future-proofed with low-carbon heating.

Currently the built environment is responsible for around 30% of total carbon emissions in the UK with residential homes responsible for around 15%. A staged introduction of the FHS in June 2022 saw a 31% improvement (to Part L 2013 base line) under [Part L 2021](#). A further 75% to 80% improvement will be seen under [Part L 2026 FHS](#) which was laid before Parliament on 24 March 2026. This will come into force on 24 March 2027 and will see 'zero carbon ready' homes built in England. This means that no further work will be required to them to achieve 'net zero' as the National Grid is decarbonised towards 2050.

What will be the impact of the FHS on new homes?

Developers will see a significant impact on the introduction of the FHS into new homes and new developments. A new approach towards securing energy strategies and adequate capacity with sufficient connections with District Network Operators and Independent

Network Operators will be required ahead of development taking place. Heat Networks and Energy Micro Grids will begin to play an increasing role in energy supply to new housing developments.

Supply chains will need to be secured in delivering sufficient heat pumps including ambient ground loops to new housing. Fabric changes and increased costs associated with photovoltaic renewable energy at a rate equivalent to 40% of ground floor area will need to be delivered in almost all new homes. Upskilling in trades, commissioning and installation will be required by supporting industries to meet government’s housing target of delivering 1.5m new homes by 2030. The FHS is likely to see significant construction cost increases to home builders currently priced from around £8000 to £12000 per home based on a builders ability to secure supply chain agreements with the wider industry.

Homeowners will experience a change in living and heating behaviours of the past. Lower levels of heating delivered via 100% electric only heat pumps will become the standard provision for heating and hot water in new homes. High fabric performance means that lower levels of heating will be required throughout the calendar year. It will be critical that heat pumps are installed commissioned and calibrated correctly in order for the home to function efficiently and effectively under the FHS.

What are the key deliverables of the FHS on new homes?

A mandatory functional requirement is placed on renewable technology being provided in new homes which is likely to only come in the form of photovoltaic energy equivalent to 40% of the dwelling’s ground floor area (AD L1 para 5.73) or a ‘reasonable amount’ where shading or orientation constraints do not allow. Under these circumstances evidence and approval will need to be sought from the building control provider.

An airtightness target of 3 m³ / (h·m²) at 50 Pa may be required under the Home Energy Model. This is far tighter than the current regulatory maximum of 8 m³ / (h·m²) and will typically require mechanical ventilation to maintain indoor air quality. The FHS notional dwelling specifies decentralised mechanical extract ventilation (dMEV), though some builders may elect to consider Mechanical Heat Vent Recovery (MVHR) for the heat recovery benefits it provides in very airtight homes.

The table below shows a typical comparison of current standards compared to those under the FHS measured against the HEM and SAP 10.3

Element	Part L 2021 (Current)	FHS Notional (HEM-anticipated- Not yet available)	England Part L 2026 FHS (SAP 10.3)	Wales Part L 2026 FHS
External walls	0.26 W/m ² K	0.15/0.18 W/m ² K	0.18 W/m ² K	0.13 W/m ² K
Ground floor	0.18 W/m ² K	0.11 W/m ² K	0.13 W/m ² K	0.11 W/m ² K
Roof	0.16 W/m ² K	0.11 W/m ² K	0.11 W/m ² K	0.11 W/m ² K
Windows	1.6 W/m ² K	Based on actual dims	1.2 W/m ² K	1.2 W/m ² K

Element	Part L 2021 (Current)	FHS Notional (HEM-anticipated- Not yet available)	England Part L 2026 FHS (SAP 10.3)	Wales Part L 2026 FHS
Doors	1.6 W/m ² K	1.0 W/m ² K	1.0 W/m ² K	1.0 W/m ² K
Airtightness	8 m ³ /(h·m ²) @ 50 Pa max	3 or 4 m ³ /(h·m ²) @ 50 Pa	4 m ³ /(h·m ²) @ 50 Pa	4 m ³ /(h·m ²) @ 50 Pa

[Part F Ventilation](#) regulation requirements were also introduced on the same date and timeline in March as the FHS with Part O, Overheating likely to be published later in 2026. Part F changes will include higher ventilation rates help ensure adequate airflow is achieved in new homes with increasing air tightness in fabric standards. Greater emphasis is placed on dMEV and MVHR along with requiring the correct design, installation and commissioning with approved contractors and competent persons. Approval with building control bodies will be required ahead of occupation to ensure the correct ventilation systems have been installed in new build homes. Ventilation ducts over 2m in length will require full accompanying designs to be approved with building control as part of the final completion of new homes.

Government have confirmed that they will not proceed with a ‘Future Homes Brand’ for new homes despite there being general support for it from industry. Government also confirmed in March that there would be no Photovoltaic Energy requirement for HRB’s which are described as being buildings over 18m or 7 storeys as aligned with Approved Document Part B. A longer 18-month lead in period is awarded to HRB’s where the FHS will not come into effect until 24 September 2027. All Gateway 2 applications submitted to the BSR after that date will be required to meet the FHS.

What is the anticipated timeline of the introduction of the FHS on new homes?

Timeline	England	Wales
First FHS consultation	October 2019	
Government response to first consultation	January 2021	
Part L 2021 uplift (31% uplift)	June 2022	November 2022
Second FHS consultation (2023)	December 2023	August 2025
HEM consultation response	October 2025	
Mandatory PV announcement	June 2025	27 February 2026
Approved Documents published	24 March 2026	7 April 2026
FHS comes into force & Transitional period commences	24 March 2027	4 March 2027
HRB provisions in force	24 September 2027	
Transitional period ends	24 March 2028	3 March 2028

The proposed FHS timeline will see the legislation laid before parliament for an initial 12-month period running from 24 March 2026 coming into effect on 24 March 2027. Government will honour a further 12-month Transitional Arrangement from 24 March 2027 until 24 March 2028. In order to get the benefit of the transitional arrangement, homebuilders must register sites and plots during the laying period and then achieve 'completion of oversight' by the end of the transitional period with approval from building control. Any new site or plot registered after the 24 March 2027 must conform with the future homes standard.

Home Energy Model (HEM) versus SAP 10.3

The Government has confirmed its intention to continue with the introduction of the HEM which replaces SAP after 30 years. DESNZ confirmed on 10 February that there would be at least a 3 month delay to the introduction of the HEM. Industry will continue with SAP 10.3 as an interim measure until the HEM is fully operational. SAP 10.3 is currently available and will be operational for at least a 2 year period.

The Home Energy Model (HEM) is the UK Government's next-generation calculation methodology for assessing the energy performance of domestic buildings. The HEM offers far more accurate half-hourly dynamic simulation of a home's energy use, carbon emissions, and running costs and carries out 17,520 thermal calculations per property per year compared with SAP's 12 thermal calculations.

The HEM has been developed by the British Research Department (BRE) in conjunction with DESNZ. HEM is built on the international standard BS EN 52016-1:2017 for dynamic thermal modelling. The HEM will be cloud based and will affect home builders, architects, engineers and energy consultants requiring training and access licences to operate and award EPC certificates for new homes. HEM values are not currently available until they become published later this year.

HEM's core engine considers Weather files, Building geometry, Occupancy levels, fabric heat loss, ventilation, heating systems, hot water, solar gains and renewable energy. Outside of this the 'FHS Wrapper' provides the metrics and the 'EPC Wrapper' produces the Energy performance Certificate (EPC) for new dwellings. The platform is cloud based and is delivered through ECaaS (Energy Calculation as a Service) to provide greater control to access the licenced software.

What are the key areas that still require greater understanding

Home builders have recognised key areas in the newly published FHS that requires further clarity from Government. HBF intend to take these forward with Government and Industry to gain greater clarity as soon as possible.

- **Interpretation challenges:** Industry requires clarity on whether 40% must always be achieved or whether it caps PV on what can reasonably be fitted applying for an exemption with building control.
- **Should housetypes go above 40%** when they are able to do so.
- Must home builders always **utilise all available roofspace** before considering

exemption despite less efficient roof aspects being present?

- **Use of garage roofs** and curtilage to locate PV (ADL section 5.71). Single ground floor extensions and associated roof areas require clarity.
- **Roof Features;** How much discretion or flexibility is there to relocate SVP's, Tile vents, ducts lengths which are linked to Part F, Ventilation.
- **Offset Distances:** Is there any flexibility with the offset distances suggested in Appendix B of ADL 2026 with ridge, eaves and verge?
- **Roof Manufacturers Approval** will be required for any flashing kits, overlapping of materials, minimum roof cover and associated jointing etc.
- **Warranty and Longevity** of plastic PV roof coverings (30yrs/60yrs).
- **G98/G99 applications** for export limits and offsite network re-enforcement issues continue to challenge homebuilders making new connections on 100% electrical housing sites. This includes detail towards export limiters/restrictors/invertors).
- Information on **Batteries, Thermal Storage, Diverters and Limiter Inverters** require greater detail from government.
- Greater understanding is required on the **transition detail** from SAP 10.3 to HEM. This is needed by industry in order to understand the impact the HEM could have on specification changes to technical, commercial and construction standards.

What is the HBF doing to help Industry to harness greater understanding?

HBF will continue to convene with members on the interpretation and detail of the FHS along with accompanying documents under Part F, Part O and the HEM. Workshops will continue with the Future Homes Hub and Government bodies with the intention of providing industry with greater clarity and understanding of the legal and deliverable requirements of the FHS before its introduction on 24 March 2027.

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