

# Demystifying the Future Homes Standard, Home Energy Model and SAP 10.3

## What is the Future Homes Standard?

The Future Homes Standard (FHS) is the next major update to Part L of the Building Regulations in England. Its aim is to ensure all new homes produce little to no operational carbon emissions, helping the UK hit its net zero targets without need for future retrofitting.

First introduced in a 2019 consultation, the FHS journey continued with Part L 2021, which acted as a stepping stone. A more detailed consultation followed in 2023, and the Government has now confirmed it **will publish the final consultation responses and a new Approved Document in Autumn 2025.**

## What is the Home Energy Model (HEM)?

There's a lot of talk about HEM, but also a lot of confusion. HEM is the next-generation methodology behind how we'll measure home energy efficiency in the UK and is being developed to eventually replace SAP. But despite the growing conversation, **HEM isn't a working tool yet.**



The HEM core (also called 'full' HEM or the Calculation Engine) is just that: a mathematical engine. To make it usable, it needs wrappers - digital layers that adapt it for specific tasks, like calculating EPCs or FHS compliance.

So while HEM is on the horizon, it's not live or functional in any real-world setting.

## Dual Methodology confirmed for Future Homes Standard Compliance

In a surprise move, the Government announced in May 2025 that FHS will support two methodologies to demonstrate compliance: **SAP 10.3 and the Home Energy Model (HEM) using the FHS wrapper.**

Originally, HEM was expected to be the sole methodology used for compliance. But after industry feedback, SAP 10.3 has been retained as a transition option which will feature a new notional dwelling, revised carbon and primary energy factors, and updates to align with the FHS. This dual approach gives assessors, developers and software providers more stability and time to adapt while HEM continues to develop.



# Why HEM Isn't Drive-Ready (Yet)

## – A Look Under the Bonnet

Think of the HEM ecosystem as a car:



### The Rules of the Road

Just as every driver must follow the rules, like speed limits and traffic lights, our industry relies on conventions and regulations to ensure assessors consistently deliver work of the highest standard. As the industry's leading Government-approved scheme, Elmhurst are here to guide you every step of the way through expert support and thorough auditing. We don't just help you understand the rules, we make sure you're applying them with confidence and consistency.

#### Raw HEM Engine = The car engine



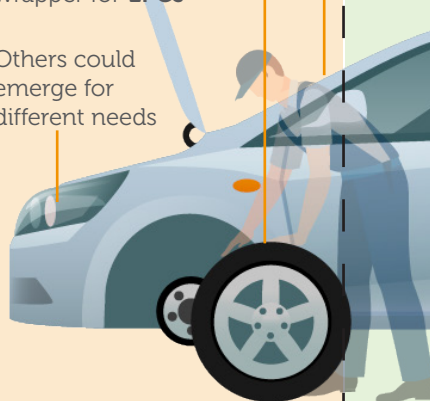
This is the Government's high-performance engine - the core energy calculation logic. But on its own, it doesn't move.

#### Wrappers = The Car Body and Components

One wrapper might be for **Future Homes Standard**

Another wrapper for **EPCs**

Others could emerge for different needs



These are the shells that make the engine usable, such as the car's body, steering wheel, pedals, and gearbox.

They turn raw energy and calculation into practical, tailored tools. Wrappers will be developed by Government and schemes will be able to connect to them to extract the correct data for specific tasks.

#### Elmhurst = The Mechanic

We're the ones in the workshop, building the vehicle **around** the HEM engine:

✓ Using **Energy Calculation as a Service (ECaaS)**, we connect to the right wrapper (FHS, EPCs, etc.)

✓ Then, we build the **user interface** - the dashboard, buttons and controls so it's simple to use, accurate and fully compliant

But we don't just build it and hand it over, we maintain it, update it, and ensure it's roadworthy every time you drive.

We work closely with government to understand every component and test rigorously, so when you start the engine, you know it will just work.

#### You = The Driver (& Navigator)

You're the one in the driver's seat, using the car we build and navigating day-to-day challenges within the industry.



But you're not just driving, you're helping us shape the vehicle.

Feedback from Elmhurst members tells us what's running smoothly, what needs a tune-up, and where the system can work better for real-world assessors, builders, and clients. You highlight the features that matter most and challenge us to make them better and more suitable for you.

### Elmhurst are leading the way

Just as we've done with every previous update to Building Regulations, we're already working to ensure our members and industry are fully prepared for what the Future Homes Standard will bring. Our teams have:

- ✓ Launched HEM Theory CPD courses available to [book now](#)
- ✓ Planned targeted training for both SAP 10.3 and the Future Homes Standard
- ✓ Commenced development of a brand-new HEM application
- ✓ Worked to upgrade our Design SAP 10 software to incorporate SAP 10.3 changes - With more to come!

**The Future Homes Standard, SAP 10.3, and the Home Energy Model (HEM)** are set to transform the way we build and assess homes in England. While the road ahead includes change, Elmhurst is already paving the way and is ready to support members at every turn.