



26 November 2025

To Whom It May Concern,

White Paper: Better Data, Better Buildings: Using Measured U-Values to Drive Performance and Compliance.

I am writing to you to present a white paper developed by Build Test Solutions Ltd, Energy House Labs (University of Salford) and Elmhurst Energy. The overarching aim of this work is to illustrate the requirement and justification to incorporate in situ measured U-values as accepted inputs within the standard UK energy models (RdSAP, SAP, SBEM, and the forthcoming Home Energy Model).

This white paper presents:

1. A detailed analysis of the limitations of current U-value assumptions in RdSAP and SBEM based on field trials carried out by BRE, the UK Government and Historic Scotland.
2. Quantitative evidence showing the material impact of U-value measurement on EPC ratings, energy use and CO₂ predictions.
3. Real-world case studies that demonstrate feasibility, scalability and policy benefit across retrofit, new build and heritage projects.
4. A practical roadmap for how measured U-values could be incorporated into existing conventions without requiring model reform.
5. Examples of QA methods and assurance, to ensure that measurements are carried out in a robust and auditable manner.

Our recommendation is a revision to current energy modelling conventions to allow U-values measured in accordance with ISO 9869, by competent, accredited individuals, to be used directly in EPC and energy model inputs. We believe this represents a low-barrier, high-impact step toward more robust energy assessments and better targeted policy interventions. To support this recommendation, the Elmhurst Measured U-Value Scheme provides a trusted and risk-averse framework that ensures all measurements are carried out by competent individuals under strict technical and procedural oversight.

Operated by an accredited scheme provider, it includes rigorous entry assessments, ongoing surveillance, and transparent processes for managing non-compliance. This not only prevents fraud but also provides assurance to stakeholders through independent appeals, audited evidence and impartial technical support.

By enforcing calibrated equipment use, mandatory insurance and long-term record keeping, the scheme promotes confidence in the accuracy and integrity of measured U-values - making it a vital component in driving better data and more reliable energy assessments. While Elmhurst's scheme is a leading example, this model

could be adopted by other accredited providers, much like the multiple schemes available for EPCs, ensuring consistency and choice across the sector. The Property Energy Professionals Association (PEPA) provides a perfect vehicle for this knowledge sharing.

You will note that this work is supported by some of the leading heritage bodies, energy assessor accreditation schemes, retrofit experts and academics in this field; these are listed below.

We would welcome the opportunity to discuss these proposals further and support their adoption across relevant standards and policy frameworks.

Yours faithfully,



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