The Home Energy Model: Energy Performance Certificates

CIEH response to a Department for Energy Security and Net Zero consultation

March 2026

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Introduction

We would like to support any metric that could be used to drive improvements in domestic energy efficiency. Many of the proposals in this consultation are moves in the right direction, and we would commend them.

The current Energy Performance Certificate (EPC) model is a metric central to new housing standards and legislation seeking to improve the health of the occupants of substandard housing. Although flawed, it is a vital tool for the early diagnosis of issues, facilitating assistance or enforcement to achieve improvements, and, being based on the Reduced Data Standard Assessment Procedure (RdSAP), does reflect the interrelationship of insulation, heating and ventilation.

Earlier proposals suggested that components of the Home Energy Model (HEM) with significant health impacts would be central to the development of the reformed EPC, implying that improvements to both energy efficiency and healthy housing could be achieved in parallel, using the EPC as both a tool and a metric.

The proposals in this consultation appear to run counter to some of the proposals in the partial response to the 'Reforms to the Energy Performance of Buildings regime' consultation issued jointly by the Ministry of Housing, Communities and Local Government (MHCLG) and the Department for Energy Security and Net Zero (DESNZ)[1]. This suggests conflicting visions for the proposed EPC replacement, depending on whether the goal is solely to drive energy efficiency improvements or, as previously suggested, to create a more multi-purpose tool. These contrasting approaches may result in perverse outcomes.

Improved energy efficiency may eventually drive improved health outcomes. In this consultation, however, the proposed principle of an automatic 'pass or fail' based purely on energy-focused factors, coupled with a low priority for introducing health-relevant elements from the HEM, seems likely to undermine new standards and legislative pathways designed to use the EPC as a health improvement tool.

In addition, although this consultation is only about the detailed parameters making up the headline metrics, and offers eventual potential for more refined assessments, the option of allowing the EPC to be based on either fabric performance plus smart readiness or fabric performance plus heating system by choice entirely negates its use as an assessment tool to underpin the proposed Decent Homes Standard and Awaab's Law in the private rented sector.

None of the smart readiness parameters under discussion in this consultation can replace a requirement for an efficient, economic, appropriate and controllable heating system, so having premises that are defective in this area but have an EPC 'pass' because of their fabric performance plus smart readiness will add more layers of complexity and fragmentation to housing standards.

[1] Ministry of Housing, Communities and Local Government and Department for Energy Security and Net Zero, *Reforms to the Energy Performance of Buildings regime – partial government response*, March 2026.

The points in this introduction are reflected both in our responses to the questions in this consultation and in our response to the 'Reforms to the Energy Performance of Buildings regime' consultation[2]. We would strongly urge DESNZ and MHCLG jointly to reconsider the proposals in this consultation in the light of them.

Responses to consultation questions

Chapter 2: Proposal for a modular approach to inputting data for existing buildings in HEM (replacement for RdSAP)

Question 1: Do you agree with the introduction of a modular approach to data input for existing builds, where assessors can enter complete data where available and rely on defaults for other elements?

- Strongly disagree

Please also see our answers to questions 2 and 5.

Question 2: Please share your views on the following potential impacts of a modular approach.

a. Quality of assessments and EPCs:
   - assessment accuracy
   - trust, usability, or consistency in EPCs
   - how inputs are communicated to consumers/householders

The current version of the EPC is distrusted in many quarters, undermining its value as an information or enforcement tool. Critics point to the use of default values (where the surveyor should have been able to enter data), inconsistent interpretation between assessments (for example assessing floor areas) and a lack of fine-grained options in some areas of assessment exclusions (for example different external fabric areas representing less than 10% of total area are ignored). Further inaccuracies can accrue from mismatches between actual construction dates and the assumed energy efficiency for building regulations periods.

A methodology that relies on defaults (even if it is envisaged that there will be new future options for inputting data – see the second and third bullet points on page 14 of the consultation document) will undermine trust in a new EPC calculation. The proposal that new options for submitting data would become admissible without being mandatory in EPC assessments seems likely to increase inconsistency and distrust. Surveyors might claim that their surveys were more accurate (and, by implication, that others were less accurate).

[2] Chartered Institute of Environmental Health, response to MHCLG and DESNZ consultation on reforms to the energy performance of buildings regime, February 2025.

d. Anything else you feel is relevant.

We welcomed the fine-grained modular approach that was implied in the early models of the HEM, particularly where data could enable, for example, the identification of small areas of cold-bridging, sources of high solar gain (and the risk of excess heat) or insights into thermal capacity. These could be used to improve the health of the occupants of dwellings with insulation, controllable ventilation or heating that is sub-standard by enabling detailed retrofit planning, assistance through grants and loans, or enforcement.

It is difficult to make meaningful assessments of what is or is not included in this proposal in the absence of worked examples or a demonstration model.[3]

The modular approach suggested here, however, with a reversion to whole-element or whole-property defaults[4] and no timetable for the introduction of methodologies for many detailed inputs, suggests that the proposed EPC could not be used as a tool for these kinds of health improvements.

This is particularly relevant to older existing properties and seems to run directly counter to the following statements in the partial response to the 'Reforms to the Energy Performance of Buildings regime' consultation.

> Providing a broader range of metrics will allow for a more comprehensive assessment of a building's energy performance, providing owners and occupiers with a wider range of retrofit options.[5]
>
> Meanwhile, these additional metrics are expected to also increase the effectiveness of EPCs for older properties, where consultees raised concerns that recommendations may not be applicable to their properties. This is supported by the proposed 'modular' approach to energy assessments in existing buildings detailed in the 'The Home Energy Model: Energy Performance Certificates' consultation.[6]

Question 3: Please share your views or provide any evidence on any alternative approaches you think we should consider for existing dwellings.

Please see the introduction to this consultation response. It would be extremely useful to review this proposal from the perspective of how improvements can best be achieved and, in particular, to consider whether enough useful material can be generated and included in the end-product metric to assist, advise, encourage,

[3] The consultation document says: "There is no interactive tool or demonstration user interface accompanying this consultation, as the model is not yet sufficiently advanced." (p. 11).
[4] See The Future Homes Standard 2025: dwelling notional buildings for consultation, Section 3: The notional building for calculating the fabric energy efficiency rate, December 2023.
[5] Ministry of Housing, Communities and Local Government and Department for Energy Security and Net Zero, *Reforms to the Energy Performance of Buildings regime – partial government response*, March 2026, para. 27.
[6] Ministry of Housing, Communities and Local Government and Department for Energy Security and Net Zero, *Reforms to the Energy Performance of Buildings regime – partial government response*, March 2026, para. 29.

support, or enforce improvements using the other legislation that either includes the EPC or overlaps it. Key examples of such legislation are the Housing Act 2004 (in relation to the Housing Health and Safety Rating System and the Decent Homes Standard), the Renters' Rights Act 2025 and Awaab's Law, as well as the regulations on minimum energy efficiency standards. These improvements would also help change the behaviour patterns of occupants and reduce anti-social behaviour.

Question 4: If a modular approach is adopted, the term "Reduced data HEM" (RdHEM) may not accurately reflect the model's structure or purpose. We want to ensure the terminology clearly conveys this flexibility and avoids confusion with previous approaches. A clear, intuitive name will help stakeholders understand the purpose of the methodology and distinguish it from both full HEM and legacy RdSAP. Potential options for the new name are:

- HEM for Existing Dwellings (HEMEX)
- HEM Input Expansion (HEMIE)
- Mixed Data for HEM (MdHEM), or
- Reduced data HEM (RdHEM).

Do you have any views on the proposed alternative name(s) that would better capture the intent and flexibility of a modular version of HEM? Do you have any other suggested options that are not listed above?

If the options (including defaults) proposed here are adhered to, then Reduced data HEM (RdHEM) best reflects the transition from RdSAP.

Chapter 3: Proposals for EPC metrics and band boundaries

Scoring and banding considerations

Question 5: Do you agree with the proposal to evaluate fabric performance using FEE?

- Disagree

Simulated heat flow may be helpful for the overall whole-dwelling calculations of heating and cooling requirements but may not give enough information for the practical, small-scale interventions required for comfort and health improvements, for example where cold-bridging causes localised damp and mould issues (and will impact on the application of the Decent Homes Standard or Awaab's Law).

Similarly, although the consultation document states that "High estimated cooling demand could be used as a proxy for the risk of overheating and can help identify measures to address this (such as shading or passive cooling)." (page 17), an estimated metric may not capture enough detail to identify where shading will suffice to offset excess heat (in the absence of, say, safe and secure passive ventilation in areas of high fear of crime).

Question 6: Do you agree with the approach to maintain broad equivalence between the C/D boundary in the current EER rating and the C/D boundary in the Fabric Performance Metric?

- Strongly agree

Strongly agree but only if the Fabric Performance Metric includes the fine-grained detail mentioned in our answer to question 5.

Supplementary fabric performance information: SMETERs and HTCs

Question 7: Do you agree with the Government's proposal to introduce an option for recording Heat Transfer Coefficients based on SMETER measurements, as supplementary information about fabric performance?

- Neither agree nor disagree.

This supplementary information will be useful as a tool for improvement only in conjunction with the other information referred to in our answers to previous questions in this consultation.

Heating System Metric

Question 9: Do you agree with our proposal on the design and methodology for the Heating System metric?

- Strongly disagree.

This proposal is extremely poorly thought through, particularly in the context of current legislative timescales and penalties and of real-world bottlenecks.

The introduction of an automatic 'fail' for a fossil fuel space or water heating system and a 'pass' for electric heat pumps will create serious problems for the owners of properties, particularly those where there is a poor electrical connection or grid (and little prospect of improvement - something which is often not within the owner's control), where there is no space for a heat pump to be installed or where there are no skilled installers.

In the context of a £10,000 cost cap exemption and the potential for landlords to choose two out of three EPC metrics, this proposal is highly likely to create perverse outcomes, such as landlords spending most of the £10,000 on a better connection to the electrical supply and having a property that still fails on two of the three metrics.

Question 10: Do you agree with the proposal to set the C/D boundary such that direct electric will always score a D or below, and that storage-based technologies would score above or below the C/D boundary based on their emissions relative to direct electric.

- Disagree

The appropriate scoring of these technologies depends on other information that may or may not be available in the EPC metric. For example, the rapid heating available with direct electric heating may be more appropriate in properties with poor thermal capacity (ones that heat up and cool down rapidly), or where good passive ventilation is not an option (areas where window opening can only be done with occupants present), while the slow release of heat from storage heaters may be more appropriate where there is good, controllable, passive ventilation in a property with good thermal mass. It would be more useful to collect this other information, so as to be able to achieve health **and** energy efficiency improvements, than to impose an arbitrary pass/fail.

Question 11: What is your view on the option of reserving the highest scores of A/B for electric cooking appliances?

- Neither agree nor disagree.

It is useful to move to electric cooking appliances to reduce indoor pollutants, but similar caveats apply as in relation to question 9. Many properties do not have links to the electricity mains that can cope with a heat pump plus an EV charger and a high consumption electric cooker and white goods, whether or not there are photovoltaic panels that can offset some consumption during the daytime (assuming there is no battery).

Smart Readiness Metric

Question 12: Do you have any views on the proposed list of technologies that would be recognised under the Smart Readiness Metric and their relative scoring? Please provide any evidence to support your answer.

Please see our response to question 9, particularly about heat pumps, space and grid connections. Please also note that the consultation document says the following.

> Minimum Energy Efficiency Standards regulations for the private rented sector already make provision for a third-party consent exemption to cover instances where a tenant has refused consent for a particular measure. This exemption will continue to be available when the higher standard comes into force. (page 23)

The Renters' Rights Act 2025 has revised the grounds under which a landlord can gain possession - see the amendments to Ground 6 for possession by the landlord under the Housing Act 1988, (d)(iv) on carrying out intended work that makes continuation of the tenancy not practicable.[7] This means the landlord could tell the tenant that they have to do energy efficiency upgrade works and therefore have to

[7] https://www.legislation.gov.uk/ukpga/2025/26/schedule/1/paragraph/20

serve the tenant with a Notice to Quit, unless the tenant withholds their consent to the works. Under these circumstances – and there are no clear-cut boundaries - the tenant is likely to withhold consent, which would be another perverse outcome.

Question 13: Do you have views on the options we have set out for how to achieve a C on the Smart Readiness Metric?

The consultation document says: "We appreciate that there will be some buildings where installing solar or other microgeneration is not possible (e.g. some flats). In some cases, it may not be possible for a dwelling to achieve a smart readiness C rating, in which case, relevant exemptions will apply for the purposes of Minimum Energy Efficiency Standards." (page 23). Please see our response to question 11 on this. It is unclear whether an exemption means that the landlord has effectively complied with one of the two required EPC metrics or that now the landlord must still achieve a C in both of the other two metrics. This could have unforeseen consequences in areas with a poor electrical grid, for example.

Question 17: Do you have any other comments regarding the design and methodology for the Smart Readiness metric?

We would highlight the following comment in the introduction to this consultation response: "None of the smart readiness parameters under discussion in this consultation can replace a requirement for an efficient, economic, appropriate and controllable heating system, so having premises that are defective in this area but have an EPC 'pass' because of their fabric performance plus smart readiness will add more layers of complexity and fragmentation to housing standards."

Energy Cost metric

Question 18: Do you agree with our proposed approach to the design and methodology for the Energy Cost metric?

- Agree

The metric would continue to be of any use to the occupant of the building, however, only if a) there is contextual information (such as assumed heating patterns and the risks of damp and mould) so that they can adjust their own behaviour to make best use of it and b) there is information on the energy costs at the time of the calculation, with the ability of the occupant to update the information – ideally using a link that enters the data into a 'current tariff calculator'.

Question 19: Do you agree that the cost metric should be presented in £, rather than bands?

- Strongly agree

Strongly agree but ideally with additional information about the equivalent banding that would have been applicable under RdSAP. This might help bridge the gap

between this EPC and the previous one. It could be particularly relevant if it could be linked in some way to retrofit information (as is presently available in a very crude format).