CATAPULT
Energy Systems

Accelerate Net Zero
energy innovation

Reform of Energy Performance Certificates

Fay Holland
Senior Energy Policy Advisor

18 February 2025

About Energy Systems Catapult

Mission: **accelerate Net Zero energy innovation**

We help energy innovators launch new products and services

Independent, not-for-profit

Based in Birmingham, 250+ experts

We work with Innovate UK

Established by Innovate UK

SME support

Consumer insight and proposition design

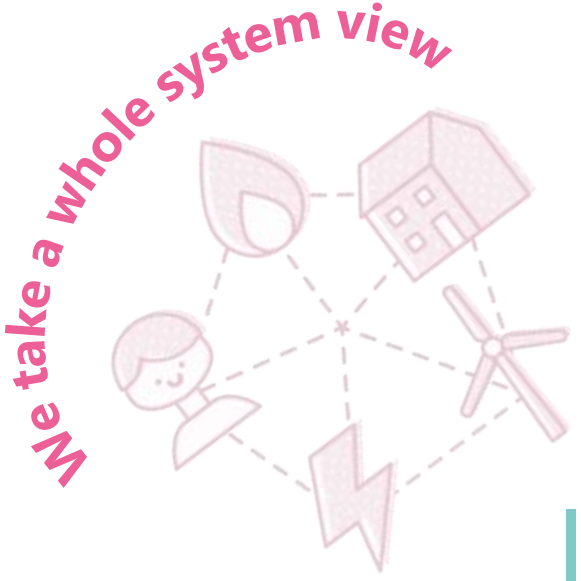
Whole system modelling

Delivering trials and demonstrations

System and clean technology engineering

Digital and data expertise

Markets, policy and regulation



Markets, policy and regulation

Thought leadership

We influence innovation-friendly policies by setting out a clear vision to address industry challenges.

Policy expertise

Expertise in economy-wide carbon policy, electricity market design, and buildings decarbonisation policy. Policy interpretation of energy system modelling, engineering, and infrastructure transitions.

Impactful engagement

Appreciation of the institutional environment for policy decision making, providing engagement on policy and regulatory issues with government and regulatory authorities.

Regulatory expertise

A deep understanding of regulatory challenges raised by low carbon technical and social change. Expertise in the economic regulation of utilities and network price controls and incentives.

We are organised around **five external-facing platforms**

where there is the greatest innovation need – and where we can add most value

Homes

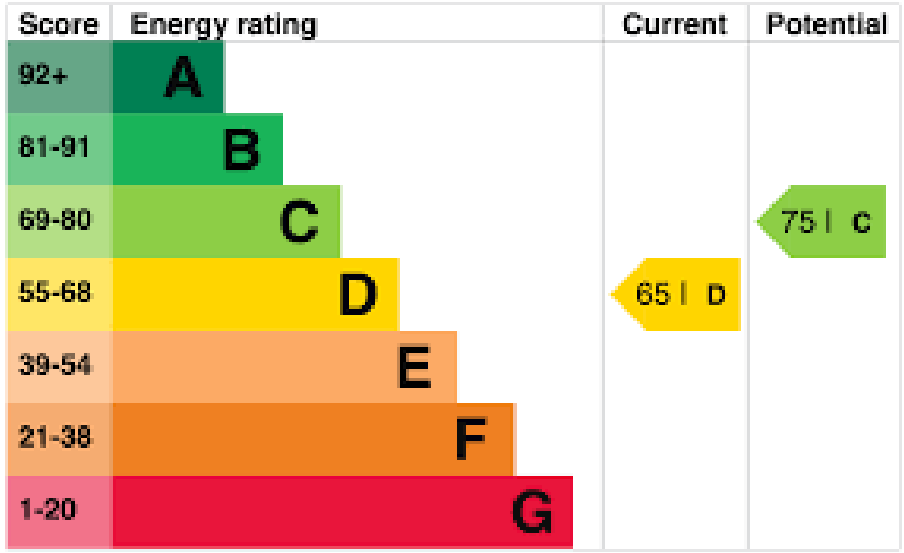
We help home energy innovators grow fast, delivering peerless real-world testing, and driving skills and investment for zero carbon homes.

- Making it quicker, cheaper and easier to develop successful clean energy solutions for homes.
- Helping to deliver a just energy transition for all.
- Driving the development of UK skills and transformation of supply chains.
- De-risking investment decisions for green finance institutions, such as investors and mortgage lenders.

What are EPCs?

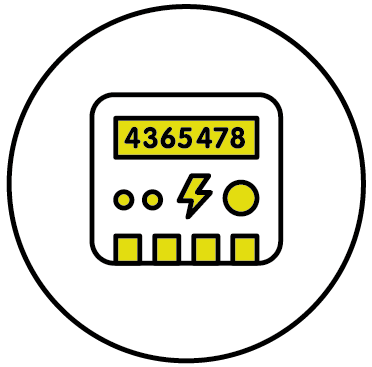
What are Energy Performance Certificates?

- Introduced in 2007, following a European directive
- Required to market a property for sale or rent
- Used extensively in policy and to determine eligibility for retrofit funding
- Based on modelled energy performance
- Provide a rating for the property and recommendations for how to improve the rating



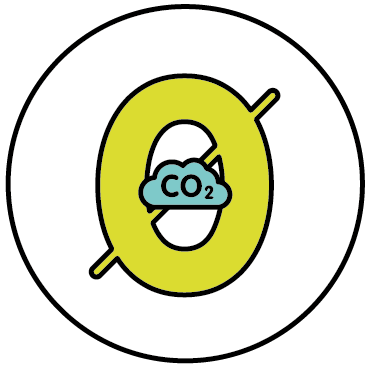
Why is reform needed?

Problems with the current system



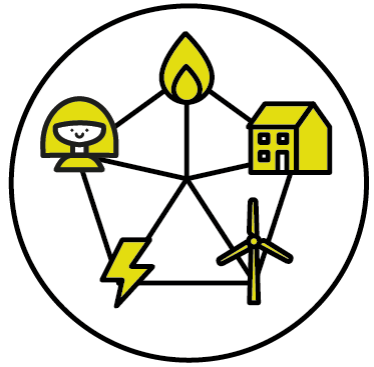
Inaccuracy and inconsistency

Not reflective of the real-world performance of buildings



Not aligned with Net Zero

25% of EPCs recommend new combi gas boilers, if these were implemented the total societal cost of excess greenhouse gas emissions could be up to £57bn



Not aligned with whole system needs

Do not take account of local energy systems or capacity of buildings to offer flexibility to the electricity system

Reform of metrics

Current metrics

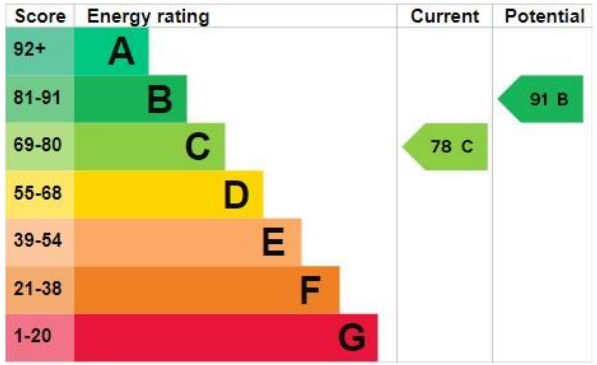
Single headline rating: **Energy Efficiency Rating** which is a form of energy cost metric.

The is rating used for regulatory purposes e.g. the Minimum Energy Efficiency Standards in the private rental sector.

Energy rating and score

This property's energy rating is C. It has the potential to be B.

See how to improve this property's energy efficiency.



The graph shows this property's current and potential energy rating.

Properties get a rating from A (best) to G (worst) and a score. The better the rating and score, the lower your energy bills are likely to be.

Secondary metric: **Environmental Impact Rating** which is rarely used for policy and regulation.

Impact on the environment

This property's environmental impact rating is E. It has the potential to be C.

Properties get a rating from A (best) to G (worst) on how much carbon dioxide (CO2) they produce each year.

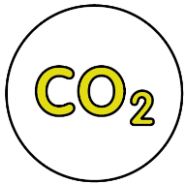
Carbon emissions

An average household produces	6 tonnes of CO2
This property produces	6.2 tonnes of CO2
This property's potential production	2.6 tonnes of CO2

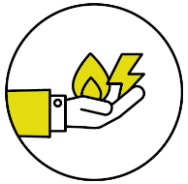
You could improve this property's CO2 emissions by making the suggested changes. This will help to protect the environment.

These ratings are based on assumptions about average occupancy and energy use. People living at the property may use different amounts of energy.

What metrics are being considered?



Carbon: estimate of the carbon emissions arising from energy used



Energy use: overall energy consumption of a building

Energy cost: financial implications of a building's energy efficiency

Fabric performance: the thermal performance of a building's envelope

Smart readiness: building's potential to integrate smart technologies that can optimise energy consumption

Heating system: information on the efficiency and environmental impact of a heating source

The government's proposed headline metrics

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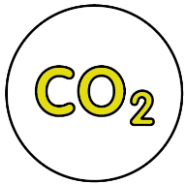
The Catapult's preferred headline metrics



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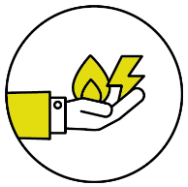

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Other reforms

Other proposed reforms

- **Reducing the validity period** from 10 years.
- Introducing methods for **measuring the thermal performance of homes** using smart meter data, weather data and internal temperature data (SMETER methods).
- Requiring all **heritage buildings** to have an EPC (currently doesn't apply to buildings officially protected as part of a designated environment or because of their special architectural or historical merit), with accompanying changes to the EPC calculation to enable tailoring of recommendations.
- Using **existing EPC data** for minor upgrades while emphasising regular re-assessments for significant changes.
- Energy assessor **training, standards and accreditation** – propose giving schemes more control to oversee training, or possibly sole responsibility to provide training to Domestic Energy Assessors, to address concerns about quality.
- Improving **enforcement** and increasing penalties.

Proposals specific to rental sector

- **Requiring a valid EPC throughout the tenancy period**, not just when the property is advertised for let.
- Extending the scope so that a valid EPC is required for an entire **house in multiple occupation (HMO)** when a single room is rented out.
- Introducing a specific requirement for **short-term rental properties** to have a valid EPC at the point of being let.
- Requiring all **heritage buildings** to have an EPC, which will bring them into scope of Minimum Energy Efficiency Standards if they are being privately let.

Timeline for reform

Current consultation closes on 26th February 2025

Consultation on EPC methodology for Home Energy Model later in 2025

Changes introduced in the second half of 2026

Existing EPCs remain valid until they expire, while new EPCs will be produced using the new methodology and metrics

Minimum Energy Efficiency Standards consultation

Proposed approach to Minimum Energy Efficiency Standards

The government is proposing to move from a cost-based metric to:

Primary standard based on the fabric performance metric

Once the property achieves the fabric performance standard, the landlord would then be required to invest towards achieving a **secondary standard** based on either:

Smart readiness metric <u>or</u>

Heating system metric

Landlords would choose which secondary standard to meet.

The **cost cap of £15,000** would be the maximum amount landlords are required to invest in the property overall, to meet both the primary and secondary standard.

Social rented sector?

- September 2024: *"The government will now shortly consult on proposals for private and social rented homes to achieve Energy Performance Certificate C or equivalent by 2030."*

- However, the current MEES consultation only covers the private rental sector in England and Wales; in England, an upcoming review of the Decent Homes Standard is expected to include similar proposals for this sector.

- The Welsh Housing Quality Standard from 2024 includes a requirement to carry out a Whole Stock Assessment and produce Target Energy Pathways for each home by 31 March 2027 and meet SAP75 EPC C by 31 March 2030. There is a target to achieve SAP92 EPC A in the future, to timescales as set by the Target Energy Pathways.

Thank you

Fay Holland

Fay.Holland@es.catapult.org.uk

es.catapult.org.uk

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