

EPCs and DEC's

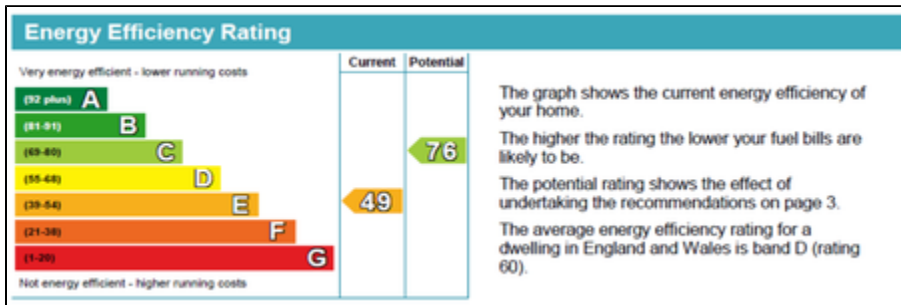
Energy Performance Certificates

Energy Performance Certificates are an established tool for measuring the energy performance of buildings. They are designed to allow consumers to reliably compare the energy performance of different properties, providing a relative understanding of energy efficiency and running costs. EPCs are required in the UK when residential and commercial buildings are constructed or put up for sale or rent, and are also required to meet the eligibility criteria for some government schemes supporting renewable energy.

EPCs have two main components, an energy rating and recommendations on how to improve it.

Energy rating

The first is an A-G rating (A+ to G for non-domestic buildings), similar to that found on many electronic products, which provides comparative information on the building's performance, as shown below. This rating is based on the cost of energy per square metre of the building.



Recommendations

EPCs also include recommendations to the property owner or landlord or prospective owner or tenant on how they could improve their property. An example which shows the top three recommended measures for a property is shown below.

Top actions you can take to save money and make your home more efficient		
Recommended measures	Indicative cost	Typical savings over 3 years
1 Floor insulation (solid floor)	£4,000 - £6,000	£ 99
2 Low energy lighting for all fixed outlets	£30	£ 72
3 Hot water cylinder thermostat	£200 - £400	£ 171

See page 3 for a full list of recommendations for this property.

EPCs also contain supplementary information including ratings on individual components of the property such as walls and windows, as well as clarifying text on various aspects and a second rating of the property based on the carbon emissions.

Comparative model

In order to allow consumers to objectively compare one building to another using the EPC, the performance of the building itself needs to be measured independently from the way it is used by the occupants. The EPC therefore uses a model based on the building composition (the fabric) and its services (such as heating, insulation ventilation and fuels used). The model does not include energy use of appliances, as these are not considered permanent fixtures of the building. Not all buildings are used in the same way, so the EPC uses 'standard occupancy' assumptions to estimate energy use which may be different from the way the actual building is used.

First introduced

EPCs have been required since 2007 when the UK transposed the requirements of the EU Directive on the energy performance of buildings (EPBD)³ into domestic legislation, and there are now over 18 million EPCs recorded on the central Energy Performance of Buildings Registers. Recasts of the EPBD and new government initiatives have resulted in some changes to the EPC system, and there have also been changes to the methodology in response to regular consultations.

Example anonymised EPC certificate



Display Energy Certificate (DEC)

A Display Energy Certificate (DEC) is required for public buildings over 250m², frequently visited by the public. It shows the energy performance of a building (the operational rating) based on the actual energy consumption as recorded over 12 months. Like EPCs, DEC's include recommendations, which enables the occupier to identify what may be done to improve the building and the way they use it in order to make it more energy efficient.

DEC's were introduced to help public authorities understand the energy performance of their buildings and consider energy efficiency improvements. As the certificate must be displayed in a prominent location, they make a public statement to visitors about the building they are visiting. Whilst not a regulatory requirement, private building owners may also commission and display a DEC in other buildings visited by the public, e.g. supermarkets. Although this Call for Evidence is focussed on EPC's many of the issues may be relevant to DEC's, e.g. the use of smart meter data and additional trigger points.

References

<https://www.gov.uk/government/consultations/energy-performance-certificates-in-buildings-call-for-evidence>