

Energy Performance of Buildings Certificates: glossary

This note provides a consolidated glossary of all the terms used in the Energy Performance of Buildings (EPB) reports. Topics are presented in alphabetical order.

Display Energy Certificates (DECs)

DECs show the amount of energy consumed during the occupation of the building over a period of 12 months. Since January 2013, DECs have been required for buildings with a total floor area over 500m² occupied by public authorities and by institutions frequently used by the public. This threshold was reduced to 250m² in 2015. For buildings over 500 and of 1,000m² or less, DECs are valid for 10 years. For buildings over 1,000m², DECs are valid for one year.

Dwellings

For definition of a dwelling and types of dwelling see [MHCLG's definitions of general housing terms](#). Please note that in the EPB series, new dwellings cover new builds as well as conversions and change of use of existing properties (i.e. converting a house into self-contained flats or changing a church into a dwelling).

Energy Efficiency Rating (EER)

The energy efficiency rating is a measure of the overall efficiency of a building. This rating is based on the performance of the building and its fixed services (such as heating and lighting). The higher the rating the more energy efficient the home is and the lower the fuel bills will be.

An EPC will show both the current energy and potential energy rating of a property in terms of its energy rating. The energy efficiency rating charts are divided into rating bands ranging from A+ to G, (or A to G in the case of a building that is a dwelling), where A+ is very efficient and G is the least efficient. Each chart has a current and a potential energy efficiency rating.

Energy Performance of Buildings Directive (EPBD)

EPBD is a European Union measure designed to tackle climate change by reducing the amount of carbon produced by buildings. The principle underlying the Directive is to make energy efficiency of buildings transparent by requiring an energy performance certificate showing the energy rating of buildings, accompanied by recommendations on how to improve its efficiency. The Ministry of Housing, Communities and Local Government (MHCLG) is the UK government department responsible for implementing the EPBD in England & Wales and also has lead responsibility for coordinating implementation in the UK.

Energy Performance of Buildings Register (EPB Register)

For an Energy Performance Certificate (EPC), or Display Energy Certificate (DEC) to be valid, the data which is used to produce the energy certificates must be lodged on the EPB Register. Energy assessor accreditation schemes had a choice of lodging the data for domestic buildings as a PDF document (the energy certificate) or as formatted data collected during the assessment process. EPCs, DEC and ACIRs are now generated directly from the EPB Register, which means that they are generated using the data that is stored on the registers whenever the document is retrieved by an end-user.

The EPB Register went live as a Ministry of Housing, Communities and Local Government service in late September 2020. The register contains EPC data for dwellings and data for non-domestic EPCs, DEC and Air Conditioning Inspection Reports (ACIRs). As of April 2021, the Register holds data related to over 22 million certificates. This volume of data, which increases daily, equates to some 5 billion individual data items.

Energy Performance Certificates (EPCs)

EPCs are a requirement of the EPBD. EPCs are required for all buildings (domestic and non-domestic), when constructed, sold or rented. There are some exemptions, e.g. buildings used as places of worship. EPCs are valid for 10 years. The EPC records how energy efficient a property is as a building, using an A+ to G rating scale (or A to G in the case of a building that is a dwelling) where A+ is the most efficient and G is the least efficient). The certificate also lists the potential rating of the building if all the cost-effective measures are installed.

Environmental Impact Rating (EIR)

The environmental impact rating is a measure of a home's impact on the environment in terms of carbon dioxide (CO₂) emissions. The higher the rating the less impact it has on the environment. This rating is based on the performance of the building and its fixed services (such as heating and lighting).

An EPC for a dwelling will show both the current emissions and potential emissions of a property.

Feed in Tariff Scheme (FiT)

FiTs is a government financial incentive designed to promote uptake of renewable and low carbon electricity-generating technologies. Domestic technologies which qualify for the scheme include solar electricity, wind turbines, hydroelectricity, anaerobic digesters and micro combined heat and power. FiTs were introduced on 1 April 2010. New rules on the payment of FiTs for solar PV installations came into force on 1 April 2012; these stipulated that any property wishing to qualify for a FiT needs to have an EPC assessment conducted on the fabric of the building to determine the rate of payment. The Department for Business, Energy and Industrial Strategy (BEIS) makes the key decisions on FiTs in terms of government policy. The energy regulator Ofgem administers the scheme. For further information see <https://www.gov.uk/feed-in-tariffs/overview>

Green Deal

The Green Deal is a government scheme operating within England, Scotland and Wales. It is a financing mechanism in that enables consumers to pay for some or all of the cost of energy-efficiency improvements through savings on their energy bills, allowing consumers to forgo upfront payments for energy saving installations. The Green Deal was launched in January 2013 and applies to both the domestic and non-domestic sector. A consumer taking out a Green Deal on a property will need to have an assessment of the fabric of the building, resulting in an EPC. This will help determine the measures likely to be eligible for Green Deal finance. The Department for Business, Energy and Industrial Strategy is the government department responsible for Green Deal policy. For further information see <https://www.gov.uk/green-deal-energy-saving-measures/overview>

Operational Rating

DEC shows the energy performance operational rating of a building based on actual energy consumption as recorded over the last 12 months within the validity period of the DEC. This rating is shown on a scale from A to G.

Reduced Data Standard Assessment Procedure (RdSAP)

RdSAP is the government approved methodology for producing an EPC for existing dwellings. For existing dwellings much of the information required to assess the energy performance is not readily available so an on-site survey is needed to collect it. To minimise inconvenience for the homeowner, the method to assess energy performance was adapted to include a set of assumptions about the dwelling based on conventions and requirements at the time the dwelling was constructed. This means that less information is required from the homeowner for the assessment than for a newly constructed dwelling.

Standard Assessment Procedure (SAP)

SAP is the government approved methodology for producing an EPC for a newly constructed dwelling. SAP is used during the construction process to demonstrate that a new dwelling meets energy efficiency targets. New dwellings typically have a lot of information readily available for the calculation. Therefore, the SAP EPC assessment is carried out off-site using the dwelling's detailed floor plans and specifications.

Tenure

For a general definition of a dwelling, type of dwelling, and tenure see [MHCLG's definitions of general housing terms](#). Please note that in the EPB series tenure is split into three categories: 'Owner Occupied', 'Private Rent' and 'Social Rent' (this latter includes local authority council homes and housing association rented homes).

Total Useful Floor Area

In the EPB Regulations "total useful floor area" means the gross floor area as measured in accordance with the guidance issued from time to time by the Royal Institution of Chartered Surveyors or by anybody replacing that Institution.