

Bothams

A guide to EPC's

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EPC's, also known as Energy Performance Certificates, are a record of how energy efficient a property is. The certificate provides a rating between A and G of the energy efficiency and CO2 emissions of a building, where A is very efficient and G is very inefficient.

An EPC is required when a property is sold or rented, and lasts for 10 years. They are the governments chosen way of complying with the Energy Performance of Building Directive (EPBD) from the EU, and are a key part of the Governments strategy to reduce the 27% of national carbon emissions that come from our houses.

The EPC is designed to give informative and useful information to the reader – it is usually four pages long and includes;

Page 1

- An energy efficiency rating between A and G, in a similar style to that used for fridges and washing machines.
- Estimated energy costs and savings averaged over a three year period
- The top three recommendations for the property, their typical cost, and the savings they would provide
- Brief Green Deal information

Page 2

- A building summary with statements about elements of the building based on data recorded by the DEA, including construction and insulation details, the heating system and hot water system
- More in-depth information about Green Deal and how the financing works

Page 3

- Full list of cost effective recommendations for the dwelling, their indicative cost, typical savings, and whether they can be financed fully or partly through the Green Deal
- List of possible 'alternative measures' - these measures improve the energy efficiency of the dwelling, but do not have costs or savings associated with them
- The Green Deal Package – this lists all the recommendations which can be fully funded by the Green Deal.

Page 4

- Energy Assessor details including contact information
- Environmental Impact Rating – this is a rating of the carbon emissions of the dwelling and is a similar A-G rating as the Energy Efficiency rating.

Energy Performance Certificate (EPC)



17 Any Street, District, Any Town, B5 5XX

Dwelling type: Detached house Reference number: 0000-0000-0000-0000-0000
Date of assessment: 15 August 2011 Type of assessment: RdSAP, existing dwelling
Date of certificate: 12 December 2011 Total floor area: 165 m²

Use this document to:

- Compare current ratings of properties to see which properties are more energy efficient
- Find out how you can save energy and money by installing improvement measures

Estimated energy costs of dwelling for 3 years	£5,367
Over 3 years you could save	£2,763

Estimated energy costs of this home

	Current costs	Potential costs	Potential future savings
Lighting	£376 over 3 years	£207 over 3 years	 You could save £2,763 over 3 years
Heating	£4,443 over 3 years	£2,087 over 3 years	
Hot water	£546 over 3 years	£330 over 3 years	
Totals	£5,367	£2,604	

These figures show how much the average household would spend in this property for heating, lighting and hot water. This excludes energy use for running appliances like TVs, computers and cookers, and any electricity generated by microgeneration.

Energy Efficiency Rating

Very energy efficient - lower running costs

Rating	Current	Potential
A (92-100)		
B (81-91)		
C (69-80)		
D (55-68)	49	75
E (39-54)		
F (21-38)		
G (1-20)		

The graph shows the current energy efficiency of your home.
The higher the rating the lower your fuel bills are likely to be.
The potential rating shows the effect of undertaking the recommendations on page 3.
The average energy efficiency rating for a dwelling in England and Wales is band D (rating 60).

Top actions you can take to save money and make your home more efficient

Recommended measures	Indicative cost	Typical savings over 3 years	Available with Green Deal
1 Increase loft insulation to 270 mm	£100 - £350	£141	
2 Cavity wall insulation	£500 - £1,500	£537	
3 Draughtproofing	£80 - £120	£78	

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

When the Green Deal launches, it may allow you to make your home warmer and cheaper to run at no up-front cost. To find out more, contact the Green Deal Advice Service on 0800 XXX XXX or visit www.greendealadvice.org.

The assessment process

An energy assessment involves an inspection of the property to ascertain the various determining elements of the property relevant to the EPC. The elements that are taken into account are as follows;

- Size of the property, in terms of area and ceiling height
- Construction and detachment type of the property
- Age of the property
- Heating system or systems
- Fixed lighting
- Floor, wall and roof insulation
- Windows and doors
- Location
- Solar panels and/or any other energy efficient additions such as wind turbines

*Please note that this is not an exhaustive list, and other elements may be considered or added at a later date in line with changes in legislation/methodology.

The data gathered during the inspection on the above elements is then entered into government approved RdSAP software, which then uses the elements in combination with two main assumptions to calculate the EPC rating.

The two aforementioned assumptions are;

- Standard occupancy – the size of the dwelling determines the number of occupants and therefore the hot water requirement.
- Standard heating pattern – the heating requirement is based on the volume of the dwelling, following standard heating patterns of 9 hours heating a day during the week, and 16 hours a day at the weekend. The living area is heated to 21°C and the rest of the house to 18°C.

The software is largely assumption based in an effort to ensure that properties are directly comparable in terms of ratings, but it is worth noting that due to the nature of these assumptions the estimated energy costs may not always be 'correct', and may be substantially higher than the actual bills you have been paying.

For example if there are only two people living in a large 5 bedrooled property, and the heating is set to only 16°C, the estimated energy costs that the software will produce will be substantially higher than the actual bills paid. Alternatively if there are four people living in a small two bedrooled property, with the heating set to a permanent 24°C, the estimated energy costs produced by the software may actually be lower than the actual bills paid.

As EPC's are centrally registered on a government register, domestic energy assessors are subject to quality assurance checks or audits on a regular basis to ensure the accuracy and validity of the EPC's produced. For this reason energy assessors have to gather evidence of the elements recorded at the property inspection to be able to include them in the assessment. The evidence is normally gathered by way of photographing the element in question, but this is not always possible.

For example in terms of cavity wall insulation, unless this can be seen and photographed either through an air brick or by the external drill holes where the insulation was pumped in, the insulation cannot be included without documentary evidence to confirm the installation of insulation. It is therefore a good idea to have any relevant documents or certificates for any such insulation or other energy efficient measures to hand for the assessor's visit.