

## Display Energy Certificates (DECs)

Since October 2008 all buildings providing a public service and which are visited regularly by the public with a floor space over 1000m<sup>2</sup> must have a Display Energy Certificate (DEC). These certificates are intended to raise public awareness of energy consumption and therefore lead by example in encouraging energy efficiency improvements. Since 2013 the floor space requirement for a DEC has dropped to 500m<sup>2</sup>

### What are DECs and why do I need one?

Reducing the energy consumption of our existing building stock is crucial to significantly reduce Greenhouse Gas emissions, which are contributing to climate change. The European Performance of Buildings Directive was adopted in 2003 to help tackle this issue, setting standards for minimum energy performance for new and existing buildings.

DECs are intended to raise public awareness of energy consumption and therefore lead by example in encouraging energy efficiency improvements. A DEC shows a building's operational energy rating on a scale from 1 - 200 which is split into equal bands from A to G, with A being the best. D is the UK average equating to a score of 100.

A DEC is valid for a year and must be updated annually. The previous two years rating is also shown on the DEC to highlight what progress has been made. The DEC must be clearly displayed, no smaller than A3 in size, in a prominent place where the public can see it. The DEC is accompanied by an Advisory Report, which contains recommendations for improving the energy performance of the building, including quick win energy management measures to longer term investments which may payback over 10 years. The report itself is valid for 7 years, whereas the DEC is valid for 1.

### How are DECs calculated?

The DEC rating is based on the actual consumption of energy in the building in the previous 12 months. All of the different sources of energy (electricity, gas, oil etc) are converted into carbon dioxide emissions to allow the building's total figure to be compared with others of a similar type, age, size etc.

The building's rating is a measure of the annual carbon dioxide emission per metre squared (m<sup>2</sup>) compared to a typical value for a building of that type. The influencing factors are:

**Building type** – there are 21 standard building types produced by the Chartered Institution of Building Services Engineers. These reflect different general categories of buildings and what they are used for such as school, office etc. These provide the benchmark consumption per unit area which the building's actual consumption is compared to. If the building's use reflects two building types, a composite benchmark can be produced.

**Location** - this enables the benchmark energy consumption to be adjusted for local weather conditions – e.g. a school in Newcastle will have a different electricity consumption compared to one in Exeter due to darker winter evenings.

**Energy consumption** - invoiced consumption of electricity, gas, oil, LPG etc.

**Building area** – the total floor space in m<sup>2</sup>. Adjustments are made for unheated and inaccessible spaces not including basements and lofts.

**Notable energy users** – where the building has untypical energy requirements for its building type, such as a server room or flood lights, and the consumption for these elements are metered, it can be separated out and treated accordingly.

**Occupancy** - the number of days and hours of occupancy for a building of that type can be adjusted if there is evidence that the building is occupied for significantly longer periods than the benchmark.

The DEC must be calculated by an accredited energy assessor using software and a method approved by the Secretary of State. Producing a DEC does not necessarily require the assessor to visit the site after the initial Advisory Report unless significant changes have been made to the building fabric or heating system. The DEC must be issued within three months of the end of the period of data – i.e. if the data is for April 2014 – March 2015, the DEC must be issued by June 2015. DEC's can overlap by up to three months.

#### **What information is required to produce a DEC?**

Invoices for all energy consumption as applicable:

- Gas
- Electricity
- Oil
- LPG

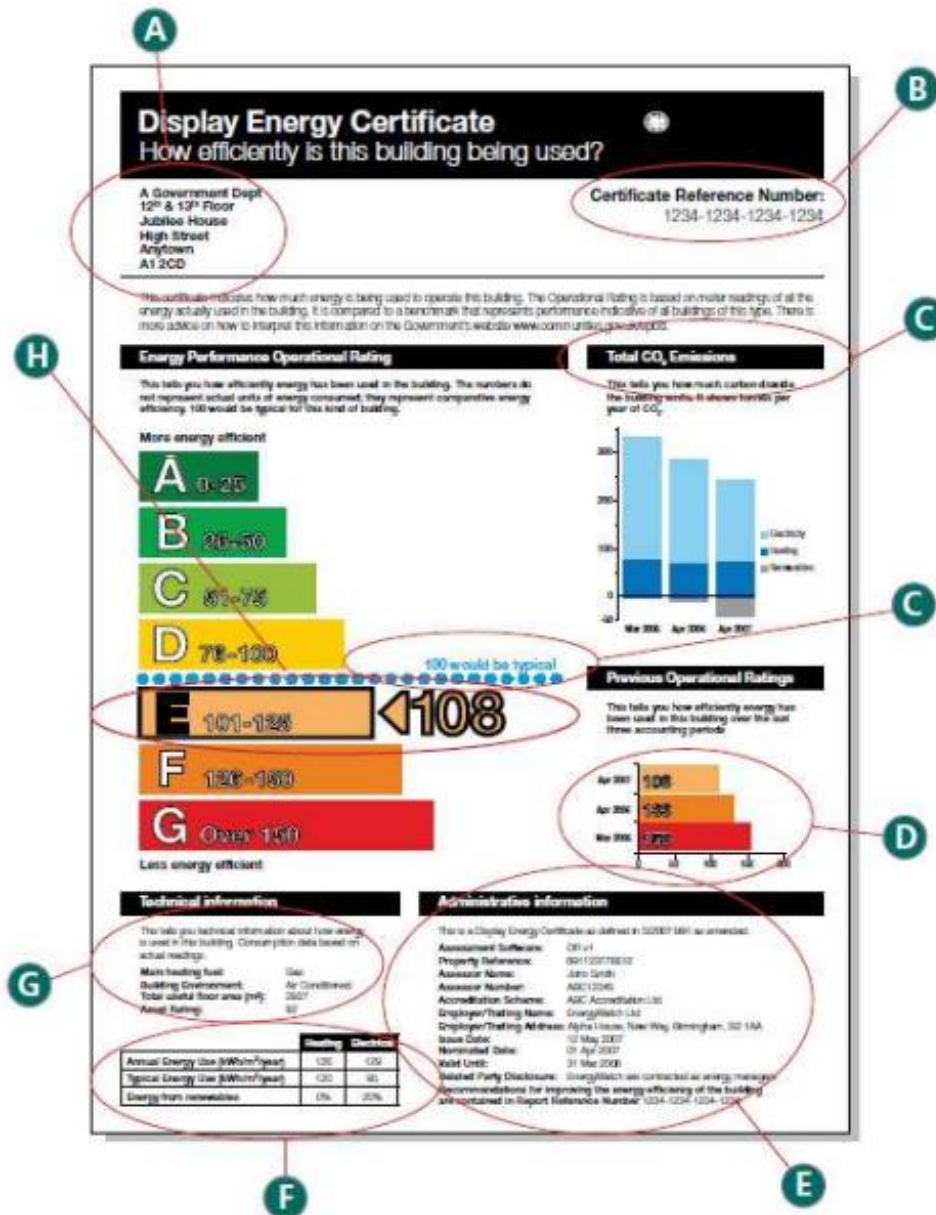
These invoices must be for a set period, which is between 0 and 3 months before the DEC is produced.

They must show the consumption of the building since the previous DEC was issued.

Also needed: any energy generated onsite, any changes to the building such as; increase or decrease in floor area, retrofit insulation, retrofit energy saving technologies such as new lighting or new boiler, increase or decrease in operational hours of the building.

## What a DEC shows

- A The building the DEC applies to.
- B The unique certificate number. This can be used to request copies from the national register and to verify the validity of the DEC, see link below; <https://www.ndepcregister.com>
- C A graph of the total annual carbon dioxide emissions resulting from energy consumption. Electricity and fuel used to heat the building produce different amounts of carbon dioxide. If energy is generated from renewable sources onsite, this is shown as a grey line beneath the graph.
- D The Operational Rating (i.e. DEC rating) in the previous two years. In this example the Operational Rating has improved.
- E Information relating to how the DEC was produced: what software was used, produced by whom, when issued and when valid till.
- F The actual energy consumption of the building per m<sup>2</sup> and the comparative benchmarks used.
- G Information relating to how the DEC is calculated: heating fuel type (which determines level of carbon emissions), how the building is heated and cooled, what its floor space is, and its EPC rating if applicable.
- H The Operational rating for the building calculated using the information provided in F and G. This shows the energy performance of the building based on how it is being used. The typical rating for a building of that type is 100, shown by the dotted line. IF the building is below this line it is performing below average.



## Frequently Asked Questions

### What if I don't have a DEC?

The penalty for failure to display a DEC is £500 and a further £1000 for failing to obtain an Advisory Report. The legislation is enforceable by every Local Weights and Measures Authority. Full details can be found in the guidance on the European Performance of Buildings Directive webpage from Communities and Local Government.

### How much will DEC's cost?

The cost of a DEC certificate depends on information that the school or LA can make available to the assessor. The occupier, in collaboration with the energy assessor, will need to know the floor area of the building being assessed, and actual meter readings or consignment notes for all fuels used in the building

over the period of one calendar year. Where the school has accurate meter readings for the last 12 months up to the date of the certificate and reasonably accurate floor areas or plans from which they can be measured the cost should be relatively low. Where estimates of fuel consumption have to be calculated because of incomplete or estimated fuel bills or floor areas need to be measured, higher costs will be incurred.

### **Who pays for DEC's?**

The 'occupier' of a school is the Local Authority where the school is either a community, voluntary controlled or community special school; and otherwise the governing body (section 78 of the School Standards and Framework Act 1998). However under local management of schools, the costs falling to the school, for all of which the authority is formally responsible as maintainer, are generally to be met from the school's delegated budget share (sections 45 to 51 of the SSFA 1998). LBNewham provides a buy-back service for schools to carry out the DEC assessments and reports at a rate cheaper than schools can individually commission their own accredited assessors to carry out the work. Primarily because LBN has all usage data already and can commission a larger quantity.

### **Why is my DEC rating 9999?**

This means that no energy consumption data was available and you were issued a default "unmetered" rating.

### **Why has my DEC rating gone down?**

This is most likely due to your energy consumption increasing compared to the previous year when taking into account the weather (which will influence the energy used for heating). This in turn could be due to a number of factors including increase in electrical equipment, opening hours, an extension without updating the floor space, the addition of a new energy intensive facility such as a swimming pool or even errors in previous energy consumption data.

### **Why has my DEC been reissued for dates overlapping the previous one?**

We are gradually aligning the period that DEC's are issued for to the financial year (April – March). This aligns with the reporting period for the Carbon Reduction Commitment Energy Efficiency Scheme (CRC), and will ensure the data collection requirements are minimised.

### **Who carries out the DEC assessment? And what qualifications are required to carry out an assessment?**

All energy assessors must be accredited. If you want to find a suitably accredited energy assessor in your area to provide you with a DEC, you can use [www.ndepcregister.com](http://www.ndepcregister.com) to find the list of approved assessors. This will allow you to search by the energy assessor's name or accreditation scheme membership number.

### **Am I affected?**

The criteria for whether a DEC is required are quite long, so they have been simplified below;

A building (or part of a building which is designed or altered to be used separately) with a total useful floor area of over 500m<sup>2</sup>. This building must be occupied by either: a Public authority. Or an institution providing a public service to a large number of persons.

This is why schools are included within the list of institutions required to have and display a DEC.

### **What if I don't display my DEC correctly or forget?**

The display certificate must be 'placed in a prominent place clearly visible to the public'. The certificate must conform to the approved layout and be produced by an accredited energy assessor; this will ensure that the content of the certificate is in an easily digestible and consistent form and at an approved size.

It is recommended that the certificate should be displayed no smaller than A3 size.

In order to be clearly visible, the certificate should ideally be placed in the reception area (or entrance) or clearly visible from it.

A hard copy display must be provided as outlined above. Occupiers may wish additionally to:

- provide a valid certificate via a website or other publicly accessible media
- show the full technical table, available on request from the accredited energy assessor that gives underlying details on the building and its energy performance
- display supplementary information to explain the contents of the certificate, including any reasons explaining poorer/better performance than previous years