



Improving the energy efficiency of our buildings  
**A guide to Display Energy Certificates and advisory reports for  
public buildings**



Improving the energy efficiency of our buildings  
**A guide to Display Energy Certificates and advisory reports for  
public buildings**

*The Energy Performance of Buildings (Certificates and Inspections)  
(England and Wales) Regulations 2007 SI 2007/991, amended by  
SI 2007/1669, SI 2007/3302 and SI 2008/647*

Communities and Local Government  
Eland House  
Bressenden Place  
London  
SW1E 5DU  
Telephone: 020 7944 4400  
Website: [www.communities.gov.uk](http://www.communities.gov.uk)

© Crown Copyright, 2008

*Copyright in the typographical arrangement rests with the Crown.*

*This publication, excluding logos, may be reproduced free of charge in any format or medium for research, private study or for internal circulation within an organisation. This is subject to it being reproduced accurately and not used in a misleading context. The material must be acknowledged as Crown copyright and the title of the publication specified.*

Any other use of the contents of this publication would require a copyright licence. Please apply for a Click-Use Licence for core material at [www.opsi.gov.uk/click-use/system/online/pLogin.asp](http://www.opsi.gov.uk/click-use/system/online/pLogin.asp), or by writing to the Office of Public Sector Information, Information Policy Team, Kew, Richmond, Surrey TW9 4DU

e-mail: [licensing@opsi.gov.uk](mailto:licensing@opsi.gov.uk)

If you require this publication in an alternative format please email [alternativeformats@communities.gsi.gov.uk](mailto:alternativeformats@communities.gsi.gov.uk)

Communities and Local Government Publications  
PO Box 236  
Wetherby  
West Yorkshire  
LS23 7NB  
Tel: 08701 226 236  
Fax: 08701 226 237  
Textphone: 08701 207 405  
Email: [communities@capita.co.uk](mailto:communities@capita.co.uk)  
Online via the Communities and Local Government website: [www.communities.gov.uk](http://www.communities.gov.uk)

**75% recycled**

This is printed on  
75% recycled paper

May 2008

Reference Number: 08SB05285

ISBN: 978-1-8511-2981-2

# Contents

<b>Foreword</b>	5
<b>Chapter 1: Introduction</b>	7
1.1 Why Display Energy Certificates are required	7
1.2 Buildings requiring a Display Energy Certificate	7
1.3 When Display Energy Certificates are required	10
1.4 Other requirements of the Energy Performance of Buildings Directive	11
<b>Chapter 2: What are Display Energy Certificates</b>	13
2.1 What is a Display Energy Certificate?	13
2.2 What a Display Energy Certificate means	15
2.3 What a Display Energy Certificate contains	16
2.4 What an advisory report contains	16
<b>Chapter 3: Obtaining a Display Energy Certificate</b>	18
3.1 Responsibilities for displaying a Display Energy Certificate	18
3.2 Producing Display Energy Certificates	18
3.3 Collecting the information required for a Display Energy Certificate	20
3.4 Energy assessor accreditation	21
3.5 Validity of DEC's and advisory reports	22
<b>Chapter 4: Assessing the Operational Rating of a building</b>	23
4.1 What contributes to the Operational Rating of a building	23
4.2 What the assessment involves	24
<b>Chapter 5: Applying the Regulations in practice</b>	26
5.1 Public Authority or Institution providing public services occupying a building	26
5.2 Public Authority or Institution providing public services sharing a building	27
5.3 Public Authority or Institution providing public services occupying buildings that are linked	28
5.4 Public Authority or Institution providing public services occupying buildings on a campus	30
5.5 Displaying the certificate	30

<b>Chapter 6: Consumer protection and enforcement</b>	32
6.1 Checking the authenticity of a Display Energy Certificate	32
6.2 Checking the authenticity of your energy assessor	32
6.3 Complaints	33
6.4 Penalties for not having a DEC	33
<b>Chapter 7: Frequently asked questions</b>	34
<b>Glossary of terms</b>	35
<b>Annex A</b>	36
Gathering the information required to prepare a DEC	36
<b>Annex B</b>	44
Further sources of information	44
<b>Annex C</b>	45
Saving energy in your building	45

## Foreword

This document is not a statement of the law, but is intended to help managers, owners and occupiers of large public buildings and their agents understand how the Regulations work in practice, how to apply the Regulations, what their responsibilities are and when display energy certificates and advisory reports are required.

Non-dwellings are responsible for almost 20 per cent of the UK's energy consumption and carbon emissions. This guide provides an introduction to the Regulations for display energy certificates for large public buildings. Display Energy Certificates ('DECs') promote the improvement of the energy performance of buildings and form part of the final implementation in England and Wales of the European Directive 2002/91/EC on the Energy Performance of Buildings.

This guide describes the scope and requirements of the Regulations applying to large public buildings and provides guidance on how these are applied. While this guidance aims to explain how the requirements will work in practice, any interpretation of the Regulations is offered only as a guide, as the Department cannot provide legal advice and only the courts can provide an authoritative interpretation of the law. Therefore, it is important to read and understand the Regulations as well. In cases of doubt independent legal advice should be sought.

This document is part five of the series that explains the introduction of Energy Performance Certificates, Display Energy Certificates, and air conditioning inspections in England and Wales.



# Chapter 1

## Introduction

This guide describes the obligations that come into force on 1 October 2008 for public authorities and institutions providing public services to a large number of people that occupy buildings (or parts of buildings that have been designed or altered to be used separately) where the total useful floor area of the building (or part that has been designed or altered to be used separately) exceeds 1000m<sup>2</sup> and which is frequently visited by the public.

### 1.1 Why Display Energy Certificates are required

The purpose of introducing Display Energy Certificates (DECs) is to raise public awareness of energy use and to inform visitors to public buildings about the energy use of a building. DECs provide an energy rating of the building from A to G, where A is very efficient and G is the least efficient and are based on the **actual** amount of metered energy used by the building over a period of 12 months.

An affected organisation must display a DEC in a prominent place clearly visible to the public and have in its possession or control a valid advisory report. The advisory report contains recommendations for improving the energy performance of the building.

The introduction of DECs will for the first time give publicly accessible information on the energy performance of public buildings. It is important not only that the public sector complies but that it is seen to be setting an example. Environmental performance is increasingly important to reputation. Accordingly if there is any doubt over whether a DEC is required, it would be good practice to produce a DEC in any event.

### 1.2 Buildings requiring a Display Energy Certificate

A DEC and advisory report are required for **buildings** with a total useful floor area (see Glossary of terms for a definition) over **1,000m<sup>2</sup>** that are occupied in whole or part by **public authorities** and by **institutions providing public services** to a **large number of persons** and **therefore frequently visited by those persons**.



For the purposes of the regulations, a **building** is defined as, '*a roofed construction having walls, for which energy is used to condition the indoor climate, and a reference to a building includes a reference to a part of a building which has been designed or altered to be used separately*<sup>1</sup>'.

For a building to fall within the requirement for a DEC it must:

- have a roof and walls; and
- use energy to condition the indoor climate. This is the case where the building has any of the following fixed services: heating, mechanical ventilation or air conditioning.

A building can either be:

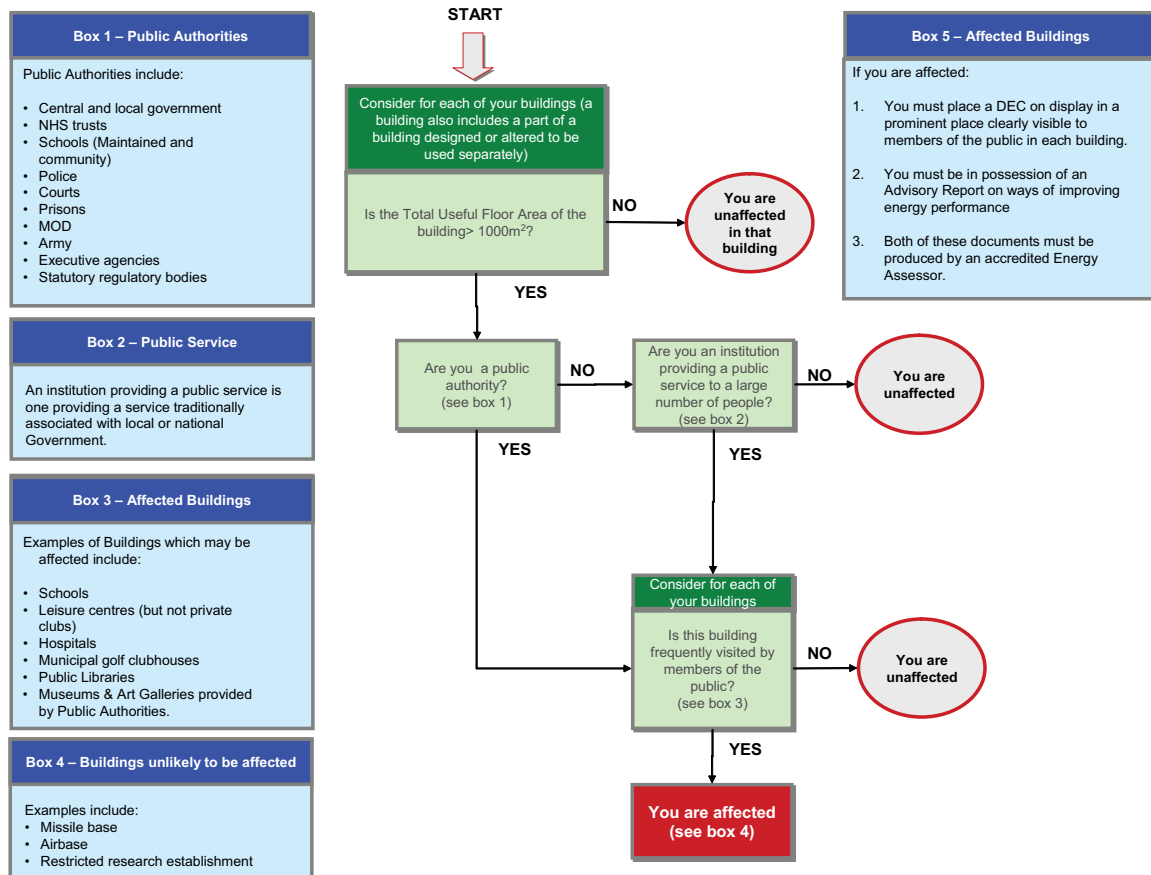
- the whole of a building; or
- part of a building, where the part is designed or altered to be used separately<sup>1</sup>.

**Only** buildings, with a total useful floor area greater than 1000m<sup>2</sup>, occupied either by a public authority or an institution providing a public service (referred to as *relevant institutions*) to large number of people and therefore frequently visited by those persons are affected by this legislation.

Private organisations, including those that may share a building with a relevant institution, **do not** need to display a DEC, but may elect to do so on a voluntary basis.

<sup>1</sup> A part of a building designed or altered to be used separately is where the accommodation is suitable for separate occupation. This could be indicated by the accommodation having its own access, separate provision of heating and ventilation or shared heating and ventilation but with the ability by the occupier to independently control those services. The part could be deemed to be separate even if some facilities (i.e. kitchen and toilet facilities) were shared.

Use the flowchart below to help you find out whether your building may be affected.



The criteria for whether a DEC is required are:

1. A building (or part of a building which is designed or altered to be used separately) with a total useful floor area of over 1000m<sup>2</sup>.
2. This building must be occupied by either:
  - a) A **Public authority**. A public authority includes central or local government departments and some non-departmental public bodies; or
  - b) An **institution** providing a **public service** to a large number of persons. An institution providing a **public service** is one that provides services that are traditionally provided by local or national government, or are traditionally funded by the taxpayer. In determining whether an institution is providing a public service the following should be considered, whether:
    - the institution is autonomous or not
    - the service is one that has been provided by local or central government in the past
    - local or central government has a duty to provide the service
    - local or central government plan, or fund, the provision of the service.

If the institution is entirely autonomous, the service has never been provided by government, local or central government do not have a duty to provide the service and local or central government do not plan or fund the provision of the service, then the services are not likely to constitute public services. Where some, but not all of these factors apply, a case by case approach is necessary and legal advice may be needed.

If the management of a public service is contracted out, the duty is still likely to apply.

3. The buildings must also be frequently visited. Many buildings occupied by public authorities and institutions exist in order to supply services to the public in one form or another and can therefore expect to be frequently visited by the relevant part of the public. If the building is provided for members of the public to visit in order to receive a public service or in conjunction with such services, then a DEC should be provided.

Some buildings occupied by public authorities and institutions provide public services but not in a form which requires frequent visits by members of the public, or indeed for which such visits would be desirable. Since a DEC is designed for public use, there is no reason to provide one if it will never or only exceptionally be seen by a member of the public. These are likely only to be visited by:

- employees
- or non-employees visiting only for the purposes of delivery or to carry out maintenance activities.

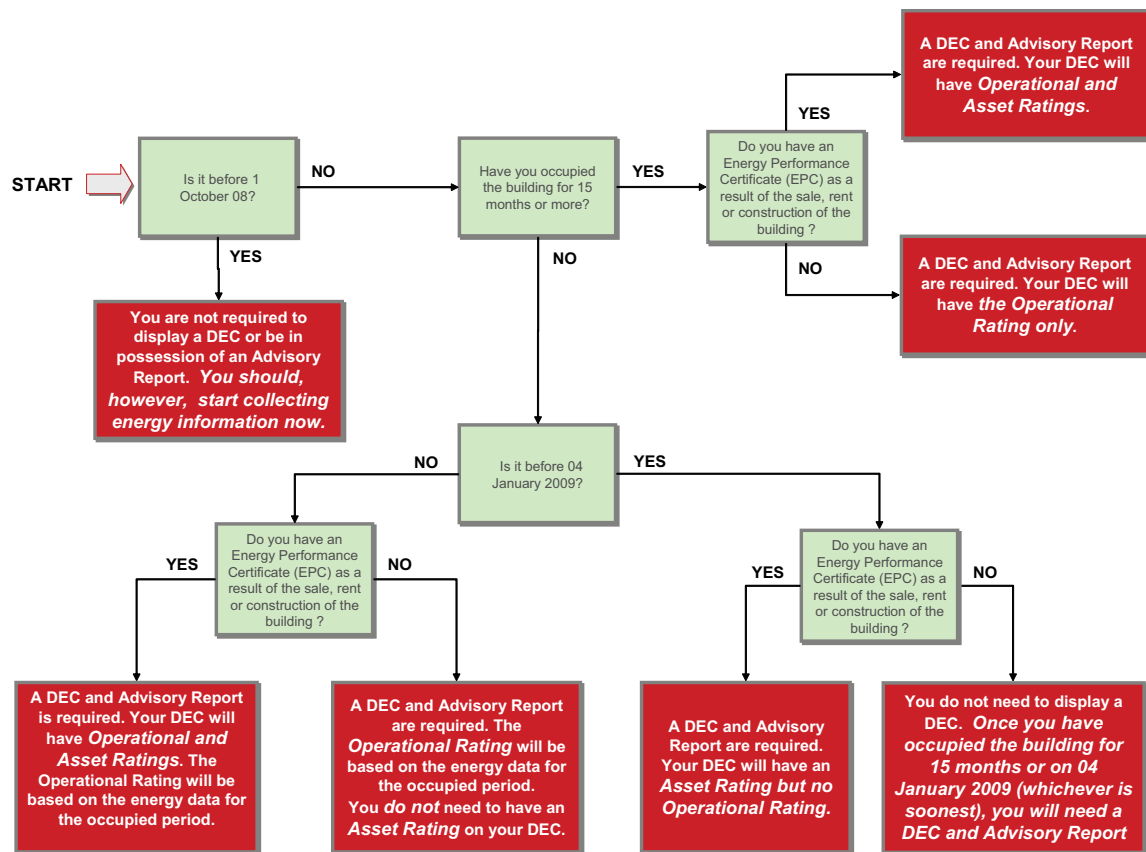
The aim of the directive is for the public to receive energy information about a building they are visiting. The Department would seek to encourage the provision of this information, wherever possible, even if it is not legally required. The public sector should set an example and if there is any doubt over whether a DEC is required, it would be good practice to produce a DEC in any event.

### 1.3 When Display Energy Certificates are required

By 1 October 2008 if you are an **occupier** of a building requiring a DEC, you will need to display a DEC showing an Operational Rating in a prominent place clearly visible to the public.

By 1 October 2008 you will also need to have in your possession or control a valid **advisory report**.

If you are a new occupier, or have been in occupation for less than 15 months by 1 October 2008, you may not have 12 months of meter readings available that are required for an Operational Rating. The legislation makes provisions for calculation over the period of occupation in these cases and the chart below will help you determine what you need to provide.



DECs must be renewed every 12 months. You can also consult this chart at renewal to check what is required.

If you are in possession of an Energy Performance Certificate (EPC)<sup>2</sup>, then you will have an Asset Rating for the building, which shows the performance of the building's fabric and its fixed building services (such as heating and lighting), based on standard assumptions as to how it is used. If you have an Asset Rating, this must be displayed on the DEC.

## 1.4 Other requirements of the Energy Performance of Buildings Directive

Other aspects of the Energy Performance of Buildings Directive may apply to a building:

### 1. An EPC is required when a building is constructed, sold or let.

- a. For non-dwellings, this requirement started for buildings larger than 10,000m<sup>2</sup> from 6 April 2008, for buildings larger than 2,500m<sup>2</sup> from 1 July 2008 and for all other non-dwellings from 1 October 2008.

<sup>2</sup>EPCs are required for the sale, rent or construction of non-domestic buildings larger than 10,000m<sup>2</sup> from 6 April 2008, those larger than 2,500m<sup>2</sup> from 1 July 2008 and all other buildings from 1 October 2008.

- b. For homes when sold (marketed sales requiring a HIP), this is a current requirement. This requirement starts from 1 October 2008 on the sale of all other homes.
- c. This requirement started from 6 April 2008 for homes when constructed.
- d. This requirement starts from 1 October 2008 for homes when rented.

**2. An air conditioning inspection is required if the effective rated output of systems within a building are more than 12kW.**

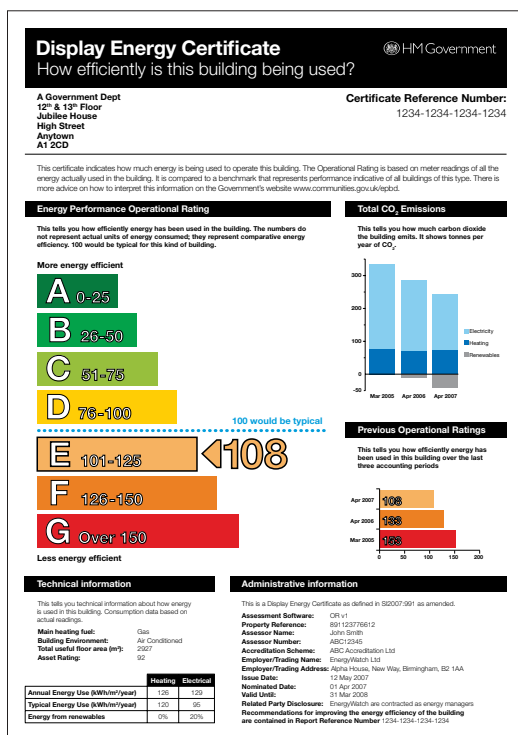
- a. If the system has an effective rated output of 250kW or more, the first inspection **must be** done by 4 January 2009.
- b. If the system has an effective rated output of 12kW or more, the first inspection **must be** done by 4 January 2011.

# Chapter 2

## What are Display Energy Certificates?

### 2.1 What is a Display Energy Certificate?

A Display Energy Certificate shows the energy performance of a building based on actual energy consumption as recorded annually over periods up to the last three years (the Operational Rating). The DEC also shows an Asset Rating for this building if this is available (by way of an EPC). A DEC is valid for one year and must be updated annually.



The Operational Rating (OR) is a numerical indicator of the actual annual carbon dioxide emissions from the building. The various types of energy consumption from occupying a building must be brought together on a common basis so that the performance of one building can be compared with that of another. The UK has decided that the common unit should be CO<sub>2</sub> emissions, since this is a key driver for energy policy.

This rating is shown on a scale from A to G, where A is the lowest CO<sub>2</sub> emissions (best) and G is the highest CO<sub>2</sub> emissions (worst). Also shown are the Operational Ratings for the previous two years; this provides information on whether the energy performance of the building is improving or not.

The OR is based on the amount of energy consumed during the occupation of the building over a period of 12 months from meter readings and is compared to a hypothetical building with performance equal to one typical of its type (the benchmark). Typical performance for that type of building would have an OR of 100. A building that resulted in zero CO<sub>2</sub> emissions would have an OR of zero, and a building that resulted in twice the typical CO<sub>2</sub> emissions would have an OR of 200. If the building is a net energy generator, it would still be given an Operational Rating of zero.

The OR must be calculated according to the methodology approved by the Secretary of State (SoS). This is done by an accredited energy assessor using a software tool for the calculation which has been approved by the SoS. This is available on

request from the Department for Communities and Local Government or [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd)

The DEC should be displayed in a prominent place that is clearly visible to members of the public. A sample certificate is shown. To enable members of the public to view the document easily, it should be no smaller than A3 in size. See Chapter 5.5 for more guidance on displaying DEC's.

A DEC must be accompanied by an advisory report and the owner of the building must have a valid one available. The advisory report highlights recommendations to improve the energy performance of the building (ie its fabric and associated services such as heating, ventilation and lighting). An advisory report is valid for seven years.

## 2.2 What a Display Energy Certificate means

<b>A</b>	This provides information about the building that the DEC applies to.
<b>B</b>	Every DEC has a unique number. This number can be used to locate and get a copy of the certificate from the national register and to verify the validity of a DEC.
<b>C</b>	<p>The energy used by the building is converted into an amount of carbon dioxide (CO<sub>2</sub>). Different types of fuel emit different amounts of CO<sub>2</sub>. This shows how the energy use has changed over the last three years. The smaller the bar, the better the performance. This building has improved its performance over the last three years.</p> <p>Below the zero line show CO<sub>2</sub> savings from Low and Zero Carbon energy sources.</p> <p>The benchmark is the average energy performance for a building of this type. A number below the line indicates the building is below average energy performance. A number above the line indicates the building is above average performance.</p>
<b>D</b>	This section of the DEC shows Operational Ratings from previous years. This building has improved its Operational Rating i.e. is using less energy and emitting less CO <sub>2</sub> than in previous.
<b>E</b>	<p>This shows key information about how the certificate was prepared.</p> <p><b>Assessment software:</b> This shows which energy assessment method was used to produce the certificate.</p> <p><b>Property reference:</b> This is a unique reference number which identifies the building.</p> <p><b>Assessor Name and Number Accreditation scheme:</b> This identifies the assessor who produced the certificate with details of their accreditation scheme and their membership number.</p> <p><b>Issue and nominated date:</b> This shows the date of issues of the certificate and the date from which the DEC is valid (i.e. the nominated date).</p>
<b>F</b>	This provides technical information about energy use. Further details are available in a full technical table.
<b>G</b>	<p>This shows the relevant elements of technical information used to produce the certificate.</p> <p><b>Main Heating Fuel:</b> This indicates the main type of fuel used to heat the building.</p> <p><b>Building Environment:</b> This indicates how the internal environment of the building is conditioned.</p> <p><b>Total useful floor area:</b> This is the total area of all enclosed spaces measured to the internal face of the external walls (in accordance with the definition in the Building Regulations).</p> <p><b>Asset Rating:</b> The asset rating of a building reflects the energy performance of that building in terms of the way it is built rather than the way it is used (standard use is assumed). It will appear here if the building has an Energy Performance Certificate (EPC). Asset ratings are on a scale of 0-150, where 0 is the most energy efficient building and 150 is the least energy efficient building.</p>
<b>H</b>	<p>This is the Operational Rating for this building. The rating shows the energy performance of the building as it is being used by the occupants.</p> <p>A building with performance equal to one typical of its type would therefore have an Operational Rating of 100. A building that resulted in zero CO<sub>2</sub> emissions would have an OR of zero, and a building that resulted in twice the typical CO<sub>2</sub> emissions would have an OR of 200.</p> <p>This rating indicates the building is being operated below average performance for a building of this type.</p>

A

B

## Display Energy Certificate

How efficiently is this building being used?

**A Government Dept**  
12<sup>th</sup> & 13<sup>th</sup> Floor  
Jubilee House  
High Street  
Anytown  
A1 2CD

**Certificate Reference Number:**  
1234-1234-1234-1234

This certificate indicates how much energy is being used to operate this building. The Operational Rating is based on meter readings of all the energy actually used in the building. It is compared to a benchmark that represents performance indicative of all buildings of this type. There is more advice on how to interpret this information on the Government's website [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Energy Performance Operational Rating

This tells you how efficiently energy has been used in the building. The numbers do not represent actual units of energy consumed; they represent comparative energy efficiency. 100 would be typical for this kind of building.

**More energy efficient**

A 0-25

B 26-50

C 51-75

D 76-100

100 would be typical

E 101-125

108

F 126-150

G Over 150

**Less energy efficient**

Total CO<sub>2</sub> Emissions

This tells you how much carbon dioxide the building emits. It shows tonnes per year of CO<sub>2</sub>.

Accounting Period	Electricity	Heating	Renewables
Mar 2005	~250	~50	~0
Apr 2006	~200	~50	~0
Apr 2007	~150	~50	~0

Previous Operational Ratings

This tells you how efficiently energy has been used in this building over the last three accounting periods

Accounting Period	Operational Rating
Apr 2007	108
Apr 2006	133
Mar 2005	153

Technical information

This tells you technical information about how energy is used in this building. Consumption data based on actual readings.

**Main heating fuel:** Gas  
**Building Environment:** Air Conditioned  
**Total useful floor area (m<sup>2</sup>):** 2927  
**Asset Rating:** 92

	Heating	Electrical
<b>Annual Energy Use (kWh/m<sup>2</sup>/year)</b>	126	129
<b>Typical Energy Use (kWh/m<sup>2</sup>/year)</b>	120	95
<b>Energy from renewables</b>	0%	20%

Administrative information

This is a Display Energy Certificate as defined in SI2007:991 as amended.

**Assessment Software:** OR v1  
**Property Reference:** 891123776612  
**Assessor Name:** John Smith  
**Assessor Number:** ABC12345  
**Accreditation Scheme:** ABC Accreditation Ltd  
**Employer/Trading Name:** EnergyWatch Ltd  
**Employer/Trading Address:** Alpha House, New Way, Birmingham, B2 1AA  
**Issue Date:** 12 May 2007  
**Nominated Date:** 01 Apr 2007  
**Valid Until:** 31 Mar 2008  
**Related Party Disclosure:** EnergyWatch are contracted as energy managers  
**Recommendations for improving the energy efficiency of the building are contained in Report Reference Number 1234-1234-1234-1234**

H

C

C

D

G

F

E



## 2.3 What a Display Energy Certificate contains

A DEC must contain, by law, the following information:

- The Operational Rating as determined by the government approved Operational Rating methodology
- The Asset Rating (if available)
- The Operational Ratings for the building expressed in any certificates displayed by the occupier during the last two years before the nominated date. In buildings where no historic energy consumption data are available, this information will not be complete until the third year of occupation after the introduction of DECs for that type of building as it will be derived from previous DECs. In buildings where historic energy consumption data are available, an accredited energy assessor can produce and lodge DEC for the previous two years, thus allowing previous year's information to be shown on the current DEC
- A reference value such as a current legal standard or benchmark.

The DEC will also show the unique certificate reference number under which the DEC has been registered, the address of the building, the total useful floor area of the building, the name and address of the energy assessor, their employer (or trading name if self employed), the name of their accreditation scheme and the date when the DEC was issued, the nominated date (marking the beginning of the 12-month validity period for the DEC) and the name of the approved accreditation scheme of which the energy assessor is a member.

## 2.4 What an advisory report contains

The advisory report accompanies the DEC and contains recommendations for improving the energy performance of the building. Advisory reports are valid for seven years.

The advisory report may contain a range of possible improvements, including cost-effective measures that may be implemented to improve the energy performance of the property. The report includes zero and low-cost operational and management improvements, possible upgrades to the building fabric or services, and opportunities for the installation of Low and Zero Carbon (LZC) technologies.

The report enables the occupier to identify what may be done to improve, for example, building energy management, building services, etc. therefore reducing energy consumption and CO<sub>2</sub> emissions.

The advisory report categorises the list of recommendations, by payback period as follows:

- Short-term payback (up to three years), for example building energy management measures
- Medium-term payback (three to seven years), for example upgrading building services
- Long-term payback (more than seven years), for example Low and Zero Carbon (LZC) technologies.

Each category includes the energy assessor's selection of the most suitable improvement measures for the building, generally between five and 10 measures. The advisory report also includes the energy assessor's recommendations which may include additional improvement measures, for example measures recommended by a previous energy audit.

The validity of the report is seven years. This is considered a reasonable interval during which the building occupier would have had sufficient opportunity to act on the recommended measures in the advisory report, following which a review would be appropriate in the light of new technology, changes to energy prices etc.

The advice provided in the advisory report is intended to be for information only. Occupiers receiving an advisory report are advised to seek further detailed professional advice before reaching any decision on how to improve the energy performance of the building.

# Chapter 3

## Obtaining a Display Energy Certificate

### 3.1 Responsibilities for displaying a Display Energy Certificate

Under this legislation it is the responsibility of every **occupier** of a building affected by these Regulations to:

- Display a valid DEC in a prominent place clearly visible to the public **at all times; and**
- Have in their possession or control a valid advisory report which conveys recommendations to improve the building's energy performance.

This must be done for each of the buildings affected.

### 3.2 Producing Display Energy Certificates

An energy assessor, accredited to produce display energy certificates for that type of building, is the only person who can produce a DEC and advisory report for your building. It is acceptable for employees to produce DEC's provided they meet the standards of and are accepted by an accreditation scheme.

Firstly the energy consumption data provided will be reviewed by the energy assessor in line with the approved methodology. Under certain conditions, the methodology allows adjustments to be made for longer hours of occupation, variations to weather and climate and allows certain activities to be separated if they are non-typical of the type of building (separable energy uses).

The carbon dioxide emissions for the certificate are based on the adjusted energy consumption and adjusted total useful floor area and building type to give a measured CO<sub>2</sub> emission per square metre.

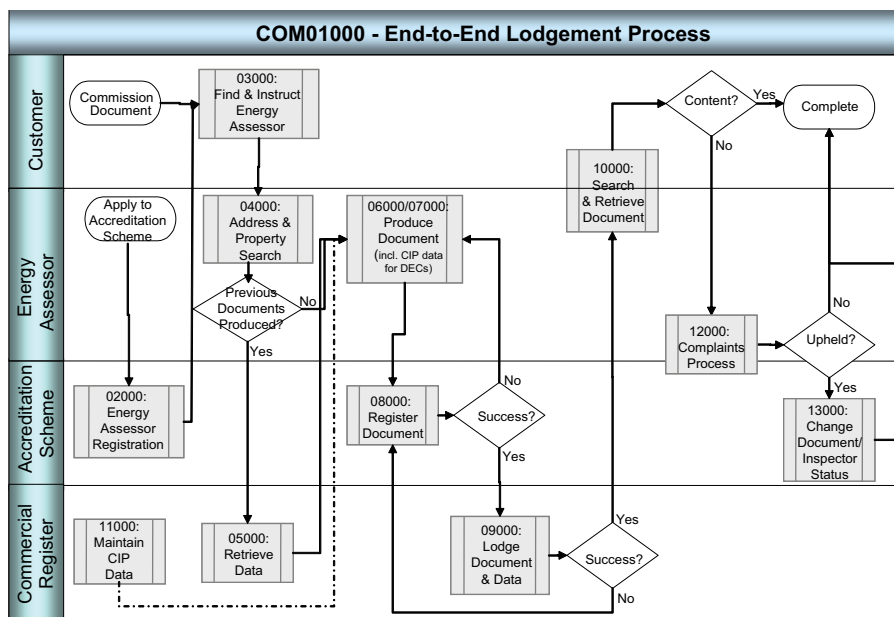
The energy assessor will then use an approved tool to calculate the Operational Rating and produce a DEC and advisory report from the information gathered in line with the approved methodology. The advisory report may entail a site survey or be based on previous knowledge of the building.

The DEC and advisory report must be lodged in a national register and given a unique certificate reference number. The national register is operated by Landmark Information Group Limited on behalf of the Secretary of State and can be found on [www.ndepcregister.com](http://www.ndepcregister.com).

Energy assessors must act in an independent manner – this is ensured by their membership of an approved accreditation scheme. Energy assessors are responsible for conducting an energy assessment, producing a DEC and advisory report and lodging the DEC and advisory report with their accreditation scheme.

The accreditation scheme is responsible for checking and lodging certificates on the national register. Accreditation schemes are also responsible for monitoring the quality of the certificates energy assessors produce. Chapter 3.4 provides more information about accreditation schemes and Chapter 6 provides more information if occupiers have a complaint or concern about an energy assessment, DEC or an advisory report.

The process for producing a DEC and advisory report is as follows:



Note: CIP – Central Information Point (provides weather data etc. for use in energy calculations).

Once an energy assessor has been commissioned to produce a DEC and advisory report, there are three main steps to performing the assessment, which are:

1. Gathering the relevant information (dimensions, energy meter readings and building energy services)
2. Entering the information into an approved software (OR Methodology) programme.
3. The software producing the certificate and the advisory report for the building.

The energy assessor then submits the certificate and advisory report to their accreditation body for lodgement on the Government's register and provides the building occupier with a copy.

### 3.3 Collecting the information required for a Display Energy Certificate

The occupier, in collaboration with the energy assessor, will need to obtain actual meter readings or consignment notes **for all** fuels used in the buildings that are affected by this legislation. This may include gas fuels, oil fuels, solid fuels, district heating and cooling, grid electricity and electricity generated on site or obtained by private distribution systems from other sites.

For district heating and cooling and electricity generated on site, or obtained by private distribution systems from other sites, the average carbon factor for the fuel over the accounting period will need to be obtained eg in kg of carbon dioxide per kWh delivered.

You can obtain the information required to produce a DEC from a number of sources:

- on-site energy meters
- the building landlord or representative<sup>3</sup>
- the utility supplier
- the district heating/cooling provider.

For affected buildings that are on a site or campus, energy metering information can be collected at site level rather than building level. DECs will however need to be provided for each affected building on the site. Please see Chapter 5.4 for more information.

The calculation of the OR is based on annual energy consumption, which means the energy consumed over the period of one calendar year (365 days). Ideally all energies are metered over the same one-year period.

For more information regarding gathering data in order to prepare a DEC, please see Annex A.

For more information on assessment and measurement periods, please see the document: '*The Government methodology for the production of Operational Ratings*', which may be found on [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd)

<sup>3</sup> A completed Landlord's Energy Statement would be an appropriate method for the Landlord to collect and provide the necessary data. See [www.bpf.org.uk](http://www.bpf.org.uk) or [www.les-ter.org](http://www.les-ter.org).

A team of people can work on gathering the information for an energy assessment as long as they are working under the direction of an Accredited Energy Assessor. The Accredited Energy Assessor **must** ensure that anyone visiting a property or gathering information on their behalf is both 'fit and proper' and suitably qualified to gather the information. Only Accredited Energy Assessors can produce and lodge a DEC.

An Accredited Energy Assessor may use data previously collected about a building. They **must**, however, be satisfied that any data about a building has been properly collected and accurately reflects the building as they will be responsible for any data used to produce a DEC.

### 3.4 Energy assessor accreditation

Government approved accreditation schemes control the quality of energy assessments, DECs and advisory reports by ensuring energy assessors are competent and possess the appropriate skills to conduct energy assessments. To become a member of an accreditation scheme, energy assessors will need to:

- demonstrate their competence, either by having a recognised qualification from an awarding body **or** approved prior experience and learning equivalent to the National Occupational Standard requirements
- maintain appropriate professional indemnity cover
- update their skills and knowledge regularly
- participate in the accreditation body's quality assurance procedures
- abide by the scheme's advice and guidance.

Approved accreditation schemes for energy assessors for DECs can be found on the Department for Communities and Local Government website at: [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

It is anticipated that many public authorities and institutions affected by this legislation will wish to get their employees trained and accredited as energy assessors. This is permissible as long as these employees are members of an accreditation scheme, to ensure that they meet the requirement to act in an independent manner. They will need to declare their relationship to the occupier on each certificate they produce. Another option would be to commission private accredited energy assessors.

### 3.5 Validity of DEC's and advisory reports

Once a DEC has been produced for a building, it is valid for a period of 12 months beginning with the nominated date. The nominated date is a date no later than three months after the end of the period over which the operational rating is calculated. The date is nominated by the energy assessor who issued the certificate, most likely in agreement with the building occupier.

This three-month period allows the data, for the chosen 12-month period, to be collected and analysed, submitted to the accreditation body and for the display energy certificate to be lodged in the national register. No gap is allowed between successive accounting periods, but an overlap, of up to three months, is allowed to enable the accounting period for the DEC to be aligned with other accounting periods (for example for large building portfolios) or with other existing administrative periods.

The validity period for an advisory report begins with the issue date of the report (as specified on the report), not a 'nominated date' selected by the energy assessor. As with DEC's, no gap is allowed between successive accounting periods. The permissible overlap between successive accounting periods is not defined and organisations may wish, for example, to align the production of advisory reports with building energy audits. Advisory reports are valid for seven years. The extended validity of advisory reports allows qualifying organisations to implement the energy improvement recommendations, and for those recommendations to have sufficient time to influence the operations of the building.

# Chapter 4

## Assessing the Operational Rating of a building

### 4.1 What contributes to the operational rating of a building

An operational rating (OR) is a measure of the annual CO<sub>2</sub> emission per unit of area of the building caused by its consumption of energy, compared to the value that would be considered typical for that particular type of building.

Factors that contribute to the operational rating include:

- **Building category.** This determines which benchmark the building will be compared against. In certain circumstances, these benchmarks may be adjusted according to location, occupancy and allowed separable energy uses. Certain buildings have activities which span more than one of the building categories. In these cases it is possible to develop a composite benchmark which will be relevant to the building.
- **Location.** This enables the standard conditions in the benchmark to be adjusted for local weather conditions.
- **Energy consumption.** This is based on meter readings or suppliers' estimates *only* and takes into account the synchronicity of measurement periods of different fuels.
- **Building area.** This is the adjusted total useful floor area as defined in the Building Regulations (please see the glossary of terms for further information). Adjustments may be done to account for allowed separable energy uses, and inaccessible unconditioned spaces.
- **Separable energy uses.** Some buildings may include activities that are not typical of their type e.g. office block with a regional server room in the basement. Including these activities could reduce the validity of a comparison and certain activities can be excluded from the calculation. The benchmarks include a list of allowable separable energy uses for each type of building. Conditions apply for the activity to be excluded, they include for example:
  - The activity must be listed as an allowable separable energy use within the benchmark for the type of building
  - The activity must have its energy use separately metered.



- **Occupancy.** the number of occupied days and hours of occupancy. The OR method allows for extended occupancy (under certain circumstances) as well as standard occupancy. Adjustments to the standard occupancy assumptions in the benchmark can be made under certain conditions including:
  - can demonstrate that the building is occupied for significantly longer periods than the standard hours quoted for the category; and
  - has relevant supporting information available.

No adjustments are made for accessible unconditioned spaces in the calculation of the OR. The total useful floor area of any unconditioned spaces (for example attics and basements) should be reported on the full technical table.

If there is on-site generation of electricity from renewable energy, Low Zero Carbon (LZC) or Combined Heat and Power (CHP), this would be reflected in a reduced grid mains electricity demand (and with CHP, an increased fossil fuel demand). Similarly solar thermal heating would normally lead to a lower fossil fuel demand. Consequently, meter readings do not need to be adjusted.

It would be good practice to meter the outputs of all LZC sources in the building as use of LZC may otherwise mask fossil fuel consumption. All newly constructed buildings must have separate meters for LZC sources to comply with Building Regulations (ADL2A). Where the energy production from an LZC source is metered, then the energy produced by each may be acknowledged on the DEC and in the more comprehensive full technical table.

## 4.2 What the assessment involves

The occupier, in collaboration with the energy assessor, needs to gather the information about the building. The energy assessor has the option of producing recommendations from either a walk around survey or a desk based survey. The energy assessor may use data previously collected about a building. However produced, the energy assessor is responsible for ensuring any recommendations are both appropriate and representative of the building.

In order to use the approved OR software to produce the DEC and advisory report, the accredited energy assessor will need to access standard reference information. This ensures all energy assessors use the same reference information and this is made available by the Government through a web-based service called the Common Information Point (CIP). Accredited assessors can download this information and use it to produce the DEC and the advisory report. The contents of the CIP are updated every month and include approved benchmark information, approved monthly

degree day<sup>4</sup> information (see glossary of terms) for the weather regions of the UK, and a table allowing the appropriate weather region to be obtained from the building's postcode.

The Government's OR software (both DEC and advisory report generation) is held on each accreditation scheme's website for download by accredited energy assessors only. A reduced version of the Government's software is also held on the central register website for public access.

<sup>4</sup> *Degree Days*. Energy use within a building depends largely on the external temperature. Heating degree days are a measure of the severity and duration of cold weather. They reflect the difference between a 'base' temperature and the outside temperature and the resulting demand for energy to heat buildings. The base temperature in the UK is 15.5°C for general use with most buildings.

# Chapter 5

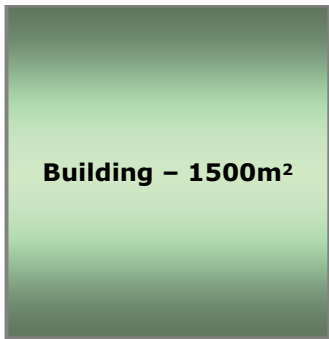
## Applying the Regulations in practice

The examples given in this list are not an exhaustive list of all the possible situations. It should be assumed that all the examples given are buildings frequently visited by the public. They are for illustrative purposes. In cases of doubt independent legal advice should be sought.

The aim of the directive is for the public to receive energy information about a building they are visiting. The Department would seek to encourage the provision of this information, wherever possible, even if it is not legally required.

### 5.1 Public Authority or Institution providing public services occupying a building

#### A. Occupation in a single building >1000m<sup>2</sup>

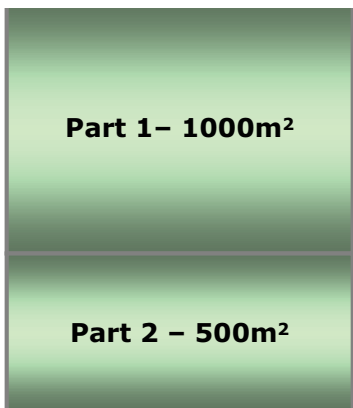


*A Public Authority is in occupation in this building.*

- 1) *It is a building*
- 2) *It is > 1000m<sup>2</sup>*
- 3) *It is occupied by a Public Authority*
- 4) *It is frequently visited by members of the public*

***The Public Authority must display a DEC for the building.***

#### B. Occupation in parts of a building, designed or altered to be used separately, where a part is >1000m<sup>2</sup>



*Public Authority 1 is in occupation in part 1.*

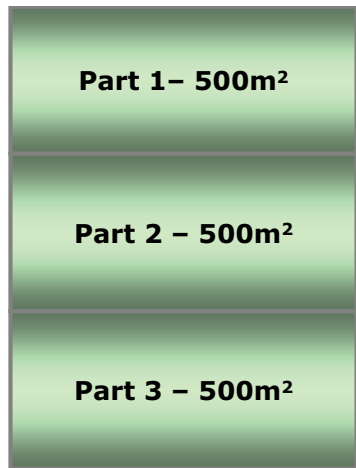
*Public Authority 2 is in occupation in part 2.*

*Both are frequently visited by members of the public.*

***Public Authority 1 needs to display a DEC for part 1 as the building > 1000m<sup>2</sup>.***

***Public Authority 2 does not need to display a DEC for part 2 as the building is less than 1000m<sup>2</sup>.***

### C. Occupation in parts of a building, designed or altered to be used separately, where no part is >1000m<sup>2</sup>



*Public Authority 1 is in occupation in part 1.*

*Public Authority 2 is in occupation in part 2.*

*Public Authority 3 is in occupation in part 3.*

*All are frequently visited by members of the public.*

***Each part of the building is less than 1000m<sup>2</sup>, therefore the parts do not need a DEC.***

In each case, the part must be *designed or altered* for separate occupation and use to be classified as a separate building. If they are not, then a DEC will be required for the whole building. Where a number of Public Authorities are in occupation in a single building, if the lead occupier provides a DEC for the building, then the other Public Authorities may be considered to have discharged their duties.

## 5.2 Public Authority or Institution providing public services sharing a building

This section amplifies the examples in 5.1, for situations where there are several tenants in one building.

### A. Shared occupation in a single building



*Public Authorities 1 and 2 occupy floors in a single building. They are frequently visited by members of the public.*

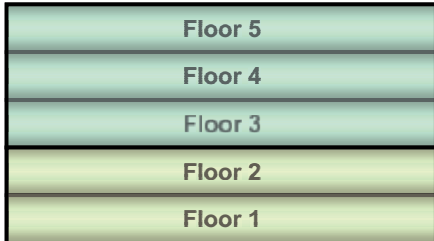
*Each floor is 600m<sup>2</sup> and there are no parts designed or altered to be used separately.*

*The total useful floor area of the building is 3000m<sup>2</sup>.*

*Public Authority 1 and 2 both occupy a building greater than 1000m<sup>2</sup> and therefore a DEC is required.*

*One DEC is required for the whole building.*

## B. Shared occupation in a building with parts designed or altered to be used separately



Each floor is 600m<sup>2</sup>.

Public Authority 1 occupies floors 1 and 2. Floors 1 and 2 are one part which is designed or altered to be used separately. Floors 1 + 2 = a building of 1200m<sup>2</sup>.

Public Authority 2 occupies floors 3 to 5. Floors 3 to 5 are one part which is designed or altered to be used separately. Floors 3+4+5 = a building of 1800m<sup>2</sup>.

Public Authority 1 should provide a DEC for the building covering floors 1 and 2.

Public Authority 2 should provide a DEC for the building covering floors 3,4,5.

## C. Shared occupation with private tenants



A private company occupies floors 2-5 and Public Authority occupies floor 1. Each floor is 1200m<sup>2</sup> and is designed or altered to be used separately.

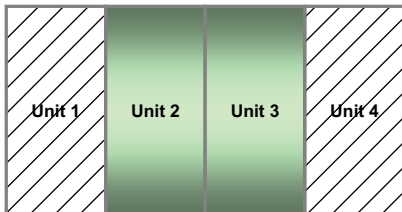
The Public Authority is frequently visited by members of the public.

The Public Authority occupies a building (Floor 1) > 1000m<sup>2</sup> and therefore should provide a DEC for that building.

Floors 2-5 occupied by the private company do NOT require a DEC.

# 5.3 Public Authority or Institution providing public services and frequently visited by a large number of persons occupying buildings that are linked

## A Occupation of separate units within a block



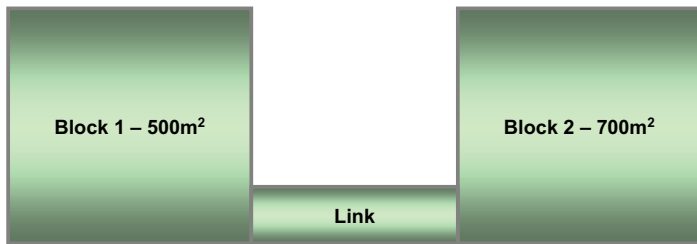
A Public Authority occupies Unit 1 and Unit 4 – each are 800 m<sup>2</sup>.

Each unit is designed or altered to be used separately and is therefore a building.

The space occupied in each building (unit) is < 1000m<sup>2</sup>, therefore a DEC is **NOT** required.

In both cases, the part must be *designed or altered* to be used separately to be classified as a separate building. If they are not, then the four units constitute one building which is more than 1,000 m<sup>2</sup> which will require a DEC, even if units two and three were occupied by a private organisation.

### B. Occupation in separate but linked buildings

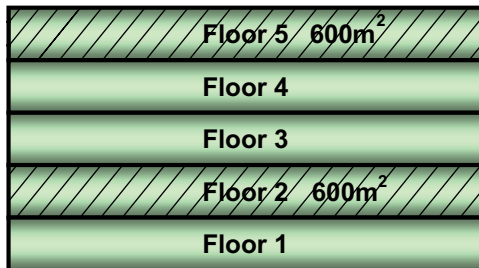


*A Public Authority occupies Block 1 and Block 2.*

*If Block 1 and 2 are designed or altered to be used separately then they are each a separate building and a DEC is not required as the total useful floor area of each building is <1000m<sup>2</sup>.*

In each case it will be a matter of fact and degree whether linked buildings are designed or altered for separate occupation and use. In the example above the link could combine the two blocks together as one building depending on the exact construction and arrangements for its use.

### C. Occupation in separate parts linked within a building



*Public Authority occupies floor 5 and floor 2. Each floor is 600m<sup>2</sup>. The floors of the building **are** designed or altered for separate occupation and use.*

*Employees are able to access 2 and 5 by means of a security card and effectively operate as one office.*

*Each floor could be considered to be a separate building and not require a DEC (as example 5.1.C).*

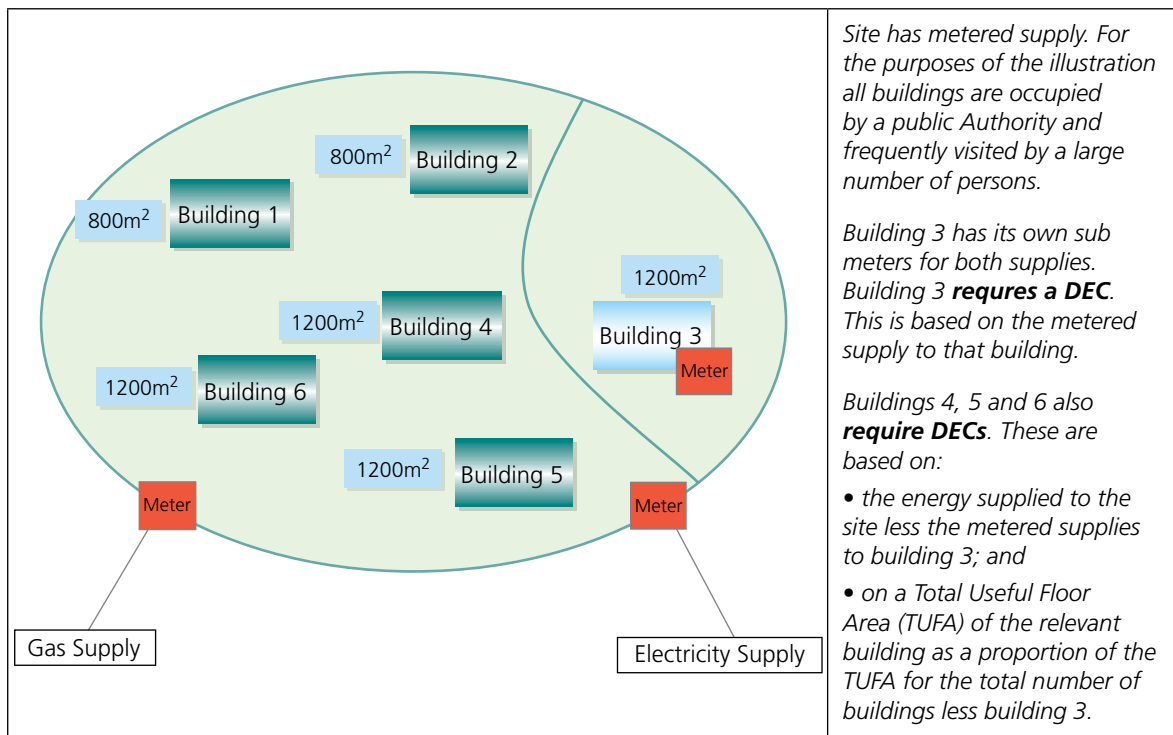
*However as they linked by stairs and lifts and are used as one office, they could be considered to be occupying a building greater than 1000m<sup>2</sup> and therefore require a DEC.*

*In this example we would expect the Public Authority to display a DEC.*

## 5.4 Public Authority or Institution providing public services and frequently visited by a large number of persons occupying buildings on a campus

The requirements are only for those *buildings* over 1,000m<sup>2</sup> and occupied by a Public Authority or institution providing public services and frequently visited by the public. Consequently, if the total area of buildings on the site is greater than 1,000m<sup>2</sup> but this area comprises several individual buildings none of which is greater than 1,000m<sup>2</sup> (and fulfil the criteria above), the requirements do not apply.

It is recognised that many public authorities or institutions providing public services have campus style facilities where metering is at the site level rather than at the building level. In such cases the display energy certificates should be based on the metered site energy demands, and the energy used by each building would be determined from the site energy consumption on a simple area weighted basis. A DEC should be displayed and an advisory report should be done for each qualifying building.



## 5.5 Displaying the certificate

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.



# Chapter 6

## Consumer protection and enforcement

### 6.1 Checking the authenticity of a Display Energy Certificate

A DEC must be lodged, by an accredited energy assessor, in the central register for non-dwellings which contains all DEC's and advisory reports. A DEC is identified by a unique reference number.

If you have commissioned a DEC for your building you will receive a copy of the certificate to display as required by the Regulations.

If you have been given a DEC and wish to check its authenticity, you can access the register by entering the reference number on the certificate. If you cannot find your certificate in the register or have any concerns regarding the authenticity of the information contained within the certificate, you should contact the accreditation body for the energy assessor who produced the DEC. The energy assessor details, their accreditation scheme and their membership number should be on the certificate.

A lodged DEC becomes legal when the accompanying advisory report has been lodged, and vice versa. No document (DEC or advisory report) lodged on its own is a legal document under the regulations.

### 6.2 Checking the authenticity of your energy assessor

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, use [www.ndepcregister.com](http://www.ndepcregister.com) to find the list of approved assessors for your area.

If you wish to check that an energy assessor is a member of an accreditation scheme, you can do this in two ways:

- Verify the credentials of your energy assessor on-line via [www.ndepcregister.com](http://www.ndepcregister.com) which provides a national register of accredited energy assessors. This will allow you to search by the energy assessor's name or accreditation scheme membership number

- Ask your energy assessor which accreditation scheme he/she is a member of (and his/her membership number). The accreditation scheme can confirm that your energy assessor is accredited to practise as a DEC energy assessor for your particular type of building.

## 6.3 Complaints

Complaints about the availability or quality of a DEC or about an energy assessor or energy assessment, should be directed to the following:

1. **Display of DECs.** For complaints regarding the display or validity of a DEC for a public building, contact the building occupier or an authorised officer of the local Weights and Measures Authority (usually the person in that authority is known as a Trading Standards Officer). The authorised officers have the power to act on your complaints.
2. **Quality or accuracy of the DEC and its recommendations.** For complaints regarding the quality and accuracy of the DEC and the advisory report, contact the accreditation body of the energy assessor who produced the DEC. Contact details can be found on the DEC.
3. **Complaints regarding an energy assessor or any aspects of the energy assessment.** For complaints regarding the energy assessor or the energy assessment, contact the energy assessor in the first instance and if the matter is not resolved, contact the accreditation body of the energy assessor who produced the DEC. Contact details can be found on the DEC.

## 6.4 Penalties for not having a DEC

A local authority can issue a penalty charge notice of £500 for failing to display a DEC at all times in a prominent place clearly visible to the public, and £1,000 for failing to possess or have in their control a valid advisory report. In addition to these penalties, it will still be necessary to commission the documents, otherwise **further offences** will be committed.

If you can demonstrate that you have taken all reasonable steps to avoid breaching the regulations, then the penalty charge notice must be withdrawn.

If you believe the penalty charge notice should not have been given you can request a review. If you are not satisfied with the outcome of the review you may appeal to the county court within 28 days after you received notice confirming the penalty charge notice.

# Chapter 7

## Frequently asked questions

### **I am a public authority and let a building I own to a private company to undertake business that is not a public service. Is a DEC required?**

No. The requirement is on the occupier to provide a DEC and as the occupier is a private company there is no requirement to display a DEC for the building.

### **I need to display a DEC – do I also need an EPC for my building?**

You will only need to have an EPC if you construct (including certain modifications), sell or let your building. If you do have an EPC for your building, the rating must be displayed on your DEC.

### **Do I have to act on the recommendations in the advisory report?**

You are under no obligation to act on the recommendations for energy improvements to the building. However, taking action on the recommendations is likely to improve the energy efficiency of your building, reduce your fuel bills, cut its carbon emissions and could improve public perception of your building.

### **Where can I find an energy assessor?**

The accreditation schemes will maintain a list of their members and should be able to provide contact details of assessors local to your area. An energy assessor should always be able to provide details of the accreditation scheme (see the list in Annex B) of which they are a member and their membership number.

### **What software can be used to produce DEC's?**

Only software approved by Communities and Local Government can be used to produce DEC's. The list of approved proprietary software packages is available at [www.ukreg-accreditation.org](http://www.ukreg-accreditation.org)

## Glossary of terms

A **building** is defined as “a roofed construction having walls, for which energy is used to condition the indoor climate; a building may refer to the building as a whole or parts thereof that have been designed or altered to be used separately”.

The **total useful floor area** is the total area of all enclosed spaces measured to the internal face of the external walls, that is to say it is the gross floor area as measured in accordance with the Building Regulations. In this convention:

- a. the area of sloping surfaces such as staircases, galleries, raked auditoria, and tiered terraces should be taken as their area on the plan; and
- b. areas that are not enclosed such as open floors, covered ways and balconies are excluded.

# Annex A

## Gathering the information required to prepare a DEC

### 1. Introduction

The guidance here indicates what information you will need to provide in order to obtain a DEC and an advisory report once it has been ascertained the building(s) occupied qualify under the regulations. This can be found in Chapter 1 of the guide to display energy certificates and advisory reports for public buildings.

In this section a building may refer to an individual building, or part of a building designed or altered to be used separately.

### 2. General requirements

To calculate the Operational Rating (OR), and produce the DEC, for your building the energy assessor will need to have access to the following information. If you are unable to provide this information, the assessor will need to obtain it from other sources.

The basic forms of information needed are:

- Identification of your building and the activities for which it is used
- The internal area of your building
- The energy consumed by your building over the year for which it is to be assessed
- Details of the building's assets that affect energy consumption (eg insulation, building services, etc).

The energy assessor will also need to be given access to earlier EPCs, recommendation reports, DECs and accompanying advisory reports. The energy assessor will be able to access these documents via the Government's central register if the certificates' and reports' unique reference numbers are provided.

## 3. Identifying your building

When you have determined the extent of the building for which you need to display a DEC, the assessor will need the name that you wish to appear as the “name of the building occupier organisation” on the DEC, together with the building’s address and postcode.

You will need to inform the assessor whether the indoor environment of the building is conditioned primarily using natural ventilation, mechanical ventilation, air conditioning, whether it operates in “mixed mode” (can operate with either air conditioning or natural ventilation), or is conditioned in any other way.

You will need to discuss and agree with the assessor how to describe the main activity carried out in the building. The main activity will be used by the assessor to identify which category the building is in, against which your building’s performance will be compared.

Your building may contain areas in which different categories of activity take place, and you or your energy assessor may choose to divide the building into areas to associate with each activity, so that each may make use of a different category in a multi-use comparison. If so, you will need to provide measurements of each part of the building that will be identified as a separate activity category.

### 3.1 Occupancy

Where you think that you occupy your building for longer periods than is typical for building of your type, then you should discuss this with the assessor as it may be possible for a correction to be made in the calculation of the Operational Rating (OR) to take this into account.

You will need to provide the assessor with robust documentary evidence of the occupancy of the building. This can be based on attendance records, survey results or published opening hours for the building.

Where different parts of the building have different occupancies the lowest occupancy must be used, unless occupancy is assessed in each part and the occupancies combined using the percentages of overall floor areas – i.e. using an area-weighted average.

## 4. Area measurements

The assessor will need to know or measure the internal area of your building in square meters. You may have this recorded directly (in either square meters or square feet) in the building documentation. Alternatively you may need to provide the assessor with floorplans or drawings of the building that can be used to measure floor areas. If you have none of these then the assessor will need to prepare sketches of, and physically measure, the internal dimensions of your building.

If you occupy parts of a building, or a number of buildings on a site served by site metering or billing, the assessor will need the areas of each part of the building, or of each building on the site, that you occupy.

The calculation of your building's Operational Rating will use the Total Usable Floor Area (TUFA).<sup>5</sup>

### 4.1 Alternative measures of floor area

If your building is an office, you may know the Net Lettable Area (NLA). The Assessor can use this directly in the OR calculation, but it will be converted to TUFA using a standard, conservative, conversion factor that may not be appropriate to your building. If you can obtain the TUFA directly you will obtain a more accurate result from the calculations.

If your building is used for retail purposes, you may know the Sales Floor Area (SFA). This can also be used directly in the OR calculation, but will be converted to TUFA using a conservative conversion factor. Providing the TUFA directly will produce a more accurate result.

### 4.2 Accessible unconditioned areas

If parts of your building are accessible but 'unconditioned', you will need to identify these areas to the assessor. An 'accessible unconditioned' area is defined as a covered area that is neither heated, cooled nor ventilated (for example attics and basements). The assessor will need to know the TUFA of any such areas.

<sup>5</sup> The **total useful floor area** is the total area of all enclosed spaces measured to the internal face of the external walls, that is to say it is the gross floor area as measured in accordance with the Building Regulations. In this convention:

- a. the area of sloping surfaces such as staircases, galleries, raked auditoria, and tiered terraces should be taken as their area on the plan; and
- b. areas that are not enclosed such as open floors, covered ways and balconies are excluded.

### 4.3 Activity areas

Particular areas in your building may be used for activities that are different from the main activity specified. If you want to identify parts of the building that will be associated with different activities from the main activity type, then you will need to describe and provide measurements of the areas of each of the activity types in the building. If you do not have the measurements, then the assessor will need to prepare sketches of, and physically measure, the internal dimensions of these areas.

### 4.4 Separable energy uses

Particular areas in your building may be used for activities that are significantly more intensive in their use of energy than those usually found in your type of building. Including these in the assessment of your building would result in a misleading Operational Rating.

The following activities may be allowable as 'separable' areas and excluded from the OR calculation:

- Regional server room
- Trading floor
- Bakery oven
- Sports flood lighting
- Furnace, heat treatment or forming process
- Blast chilling or freezing.

If these areas are included in a list of 'allowable separable energy areas' for your type of building, then they can be separated from the assessment under certain circumstances.

If your building includes one of these energy uses, you will need to discuss with your assessor whether separating out the relevant energy and area from the assessment is allowed for your type of building. If so, the assessor will need the relevant TUFA. You must also have separately measured all of the energy consumed in that area over the assessment period.

You will need to provide the assessor with a 'Separable Energy Record' signed by your property manager in which you confirm you have:

- Permanently sub-metered energy use for this specific activity
- Meter readings and analysis for the rating period (equivalent to those needed for the main part of the building)
- Measured and recorded the associated floor area



- Assessed the separable activity for energy use and efficiency within the last two years, and that you have a documented review of the assessment, including proposals for improvement.

## 5. Energy measurements

Energy measurements are fundamental factors in the calculation of the OR, and the ideal situation would be that all the energy consumed in your building would be metered. Energy measurements will normally be found from:

- On-site energy meters (building or site-wide meters)
- The building landlord or representative
- The utility supplier
- The district heating/cooling provider
- For liquid and solid fuels monitoring systems must be implemented.

Energy consumption is ideally obtained directly from on-site incoming energy meters, or from energy supply company bills based on readings covering the relevant period. If you do not have responsibility for this yourself, then you may need to obtain this information from your landlord, or you may need to obtain estimates from your energy suppliers. It is not permitted for the assessor to use energy consumption estimates other than those provided by utilities suppliers.

Where the space occupied is part of a whole building (eg two floors in a 10-storey building) a completed Landlord's Energy Statement would be an appropriate method for the Landlord to collect and provide the necessary data. Further details can be found at [www.bpf.org.uk](http://www.bpf.org.uk) or [www.les-ter.org](http://www.les-ter.org)

You will need to identify for the assessor what each individual meter, or supplier estimate of energy consumption, is used for and the areas served by the metered or estimated energy.

The assessor will need to know the start date and end date of the periods over which energy measurements, or energy supplier estimates, have been made for each of the fuels or energies used in the building.

The primary need is that you are able to identify all, or nearly all, of the energy that your building has consumed over the 365 day period for which the building will be assessed – called the assessment period. Your assessor will be asked while carrying out the calculation of the OR whether at least 95 per cent of the energy used by the building can be accounted for. If the assessor cannot make that assertion, then the building will be given a 'default' Operational Rating of 200. This indicates a CO<sub>2</sub> emissions rate of double the amount typical for the type of building selected, and is associated with a Grade G label (worst performer). Other comparative indicators will also be set at double the values typical for your building type.

### **5.1 Solid and liquid fuels**

Your consumption of some liquid fuel may be metered. Where this is not the case, and where the energy is supplied in the form of solid fuel, you will need to provide the assessor with delivery records and, where possible, details of tank levels or stock holdings at the beginning and end of the assessment period.

### **5.2 District heating or cooling**

Where you are using energy provided from a district heating or cooling scheme, and your supply is not metered at entry to your building, you will need to obtain a statement or estimate of the energy you have consumed over the relevant period from the supply company.

You will also need to obtain a statement from the district energy supplier, of the carbon dioxide (CO<sub>2</sub>) content per kWh of the energy supplied.

### **5.3 On-Site Renewables and LZC**

On site renewables (OSR) or low and zero carbon (LZC) technologies include aerogenerators, photovoltaics and solar hot water heating that provide electricity or thermal energy, and other low carbon technologies such as biomass boilers, heat pumps and CHP.

If you have made use of OSR and LZC technologies to provide electricity or heat for use in your building, the DEC may acknowledge how these have contributed towards reducing the carbon dioxide emissions of your building. However, to include the contribution of these technologies, you will need to have metered their energy output directly throughout the whole period of the assessment.

## 6. The nominated date

The DEC produced for your building will be valid for a period of 12 months beginning with the “nominated date”. The nominated date is a date no later than three months after the end of the period over which the OR is calculated, the assessment period. The date is nominated by the energy assessor who issued the certificate, and the assessor will most likely need to agree this date with you.

No gap is allowed between successive assessment periods, but an overlap, of up to three months, is allowed. These allowances are intended to allow the assessment period for the DEC to be aligned with other accounting periods (for example for large building portfolios) or with other existing administrative periods. You may need to discuss with the energy assessor whether moving the date of the next assessment would allow you to improve your access to, and the quality of, energy consumption information.

## 7. The advisory report

An advisory report should accompany the DEC. While DEC's are valid for one year, advisory reports are valid for up to seven years. The accredited energy assessor employed to produce a DEC will also be able to advise and produce an advisory report as required.

Occupiers in possession of an advisory report are advised to seek further detailed professional advice before reaching any decision on how to improve the energy performance of the building.

## 8. Existing information

If you have already obtained an EPC and Asset Rating for your building, the assessor will need to see a copy of these to obtain the Asset Rating of your building. The assessor will also need to see the associated recommendation report. If these are not readily available the assessor can, with your permission, obtain these from the Government's register using the certificate's and report's unique reference numbers.

In future years, where you have previously obtained and displayed a DEC, the assessor will need:

- The current (expiring) DEC Unique Reference Number (URN), or a copy of the actual certificate and accompanying advisory report
- Where applicable, the URN of the DEC preceding the current (expiring) DEC.

If this is the first time you are obtaining a DEC, then you will also be provided with an advisory report. However, if you have already obtained a DEC and advisory report, the assessor will need to know whether you require a new advisory report. An advisory report is valid for seven years, but you may wish to obtain a new report before the validity of an existing one has expired, particularly where you may have acted on any of the recommendations contained in the current report to improve the building's energy efficiency.

You should also show the energy assessor the report and recommendations from any other form of energy survey that you might have commissioned for your building, such as those supported by the Carbon Trust, CIBSE, or any other organisations, or professional bodies.

# Annex B

## Further sources of information

### Communities and Local Government

[www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd)

Helpline: 0845 365 2468

E-mail [help@epbduk.info](mailto:help@epbduk.info)

### The National Register

Landmark Information Group Limited

[www.ndepcregister.com](http://www.ndepcregister.com)

### Accreditation schemes for Display Energy Certificate assessment

Accreditation schemes for display energy certificate assessment are operated only by the following organisations:

- NES
- BRE
- Chartered Institute of Building Services Engineers
- Elmhurst
- Northgate
- Stroma
- Royal Institution of Chartered Surveyors
- EPC Ltd
- Quidos
- Besca
- NAPIT
- Heating and Ventilation Certificated Associates

### Information about energy efficiency, practical advice and grants

The Carbon Trust

[www.carbontrust.co.uk](http://www.carbontrust.co.uk)

# Annex C

## Saving energy in your building

You can save up to 20 per cent on your energy bills by managing energy successfully (Source: Carbon Trust). The simple steps recommended by the Carbon Trust include:

### Heating

- Are thermostats working and set at the lowest comfortable temperature?
- Are there any cold draughts from windows or doors?
- Are windows and doors open when heating or air conditioning is on?

### Lighting

- Are you still using traditional tungsten light bulbs?
- Are lamps, fittings and rooflights clean?
- Are lights switched off if there's sufficient daylight or rooms are not in use?
- Do you have any old large diameter fluorescent tube lights?

### In the office

- Are computers left on overnight?
- Are monitors switched off when not in use, such as during lunch breaks?

### In the factory

- Are pumps, fans or compressed air switched off when the equipment they serve is not in use?
- Can you hear compressed air leaks?

Metering and monitoring are at the heart of energy management. Gain actual figures from meters, rather than relying on estimated bills. Look for trends to find out how your energy is being used.

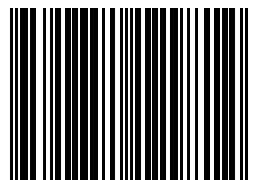
**Cut down.** Turning off lights and equipment can save around 15 per cent of energy costs. Reducing the temperature by just 1°C can save 8 per cent.

**Maintain well.** Maximise energy efficiency by regularly servicing plant and equipment.

**Stay snug.** Heating uses half your office's energy; draught proofing and pipe insulation can reduce heat loss significantly.

**ISBN: 978-1-8511-2981-2**

ISBN 978-1851129812



9 781851 129812