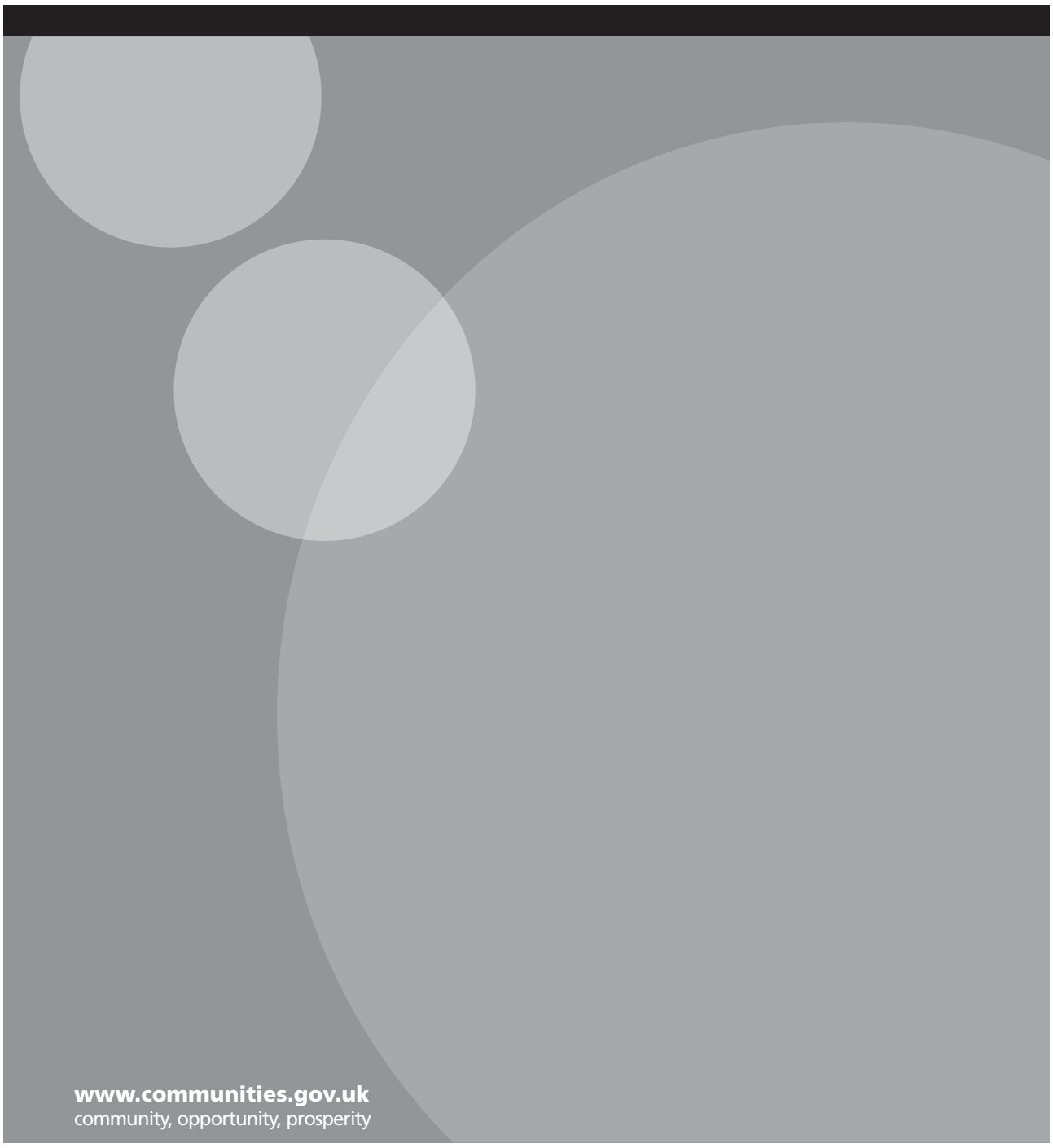
Communities and Local Government

Improving the energy efficiency of our buildings

A guide to energy performance certificates for the construction, sale and let of non-dwellings

2nd edition July 2008



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Improving the energy efficiency of our buildings

A guide to energy performance certificates for the construction, sale and let of non-dwellings

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

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Preface

This document is not a statement of the law, but is intended to help prospective sellers, buyers, landlords, occupiers, building managers, builders and their agents understand how the Directive and Regulations work in practice, how to apply the Regulations, what their responsibilities are and when energy certificates 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 energy performance certificates for non-dwellings on construction, sale or let in England and Wales. Energy performance certificates (EPCs) 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 non-dwellings on construction, sale or let 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. 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 four of the series that explains the introduction of energy performance certificates, display energy certificates, and air conditioning inspections in England and Wales.

This edition is a revised version of the document published in January 2008.

Chapter 1 Introduction

1.1 Why energy performance certificates are required

An Energy Performance Certificate (EPC) is intended to inform potential buyers or tenants about the energy performance of a building, so they can consider energy efficiency as part of their investment or business decision to buy or occupy that building.

An EPC will provide an energy rating for a building which is based on the performance potential of the building itself (the fabric) and its services (such as heating, ventilation and lighting). The energy rating given on the certificate reflects the intrinsic energy performance standard of the building relative to a benchmark which can then be used to make comparisons with comparable properties. It is accompanied by a recommendation report, which provides recommendations on how the energy performance of the building could be enhanced, together with an indication of the payback period.

1.2 Buildings requiring an energy performance certificate

An EPC is only required for a building when constructed[1], sold or let.

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".*

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

- have a roof and walls
- use energy to condition the indoor climate.

Services that are considered to condition the indoor climate are the following fixed services: heating, mechanical ventilation or air-conditioning. Although the provision of hot water is a fixed building service, it does not "condition the indoor environment" and would not therefore be a trigger for an EPC. The same argument applies to electric lighting.

[1] Construction also includes modifications to buildings that create greater or fewer parts designed or altered for separate use and where that modification includes the provision or extension of any of the fixed services for heating, hot water, air conditioning or mechanical ventilation.

Where a building is expected to have heating, mechanical ventilation or air conditioning installed, it will require an EPC based on the assumed fit out in accordance with the requirements in Part L of the Building Regulations.

A building can be either:

- the whole of a building
- part of a building, where the part is designed or altered to be used separately[2].

This guidance covers non-dwellings only. For guidance on dwellings, please refer to www.communities.gov.uk/epbd. Definitions of dwellings and non-dwellings may be found in the glossary of terms and are also set out below under the heading "Classification of buildings".

In terms of the requirement for an EPC, buildings can have multiple tenancies, differing lease agreements, various sub-letting arrangements and different uses (eg mixed retail, residential and office accommodation).

In general terms the EPC provided or made available should reflect the accommodation being sold or let.

To determine the requirement for an EPC in a building, the following should be considered:

- **Buildings with a common heating system**
  - one EPC can be produced (or made available) for the whole building and used when the building, ***or any part of it***, is sold or let
  - if a part, designed or altered for separate use, is sold or let, an EPC can be produced (or made available) for that part[3]
- **Buildings without a common heating system**
  - an EPC should be prepared (or made available) for each part being offered for sale or let. If an EPC does exist for the whole building (e.g. as a result of construction) it is not possible to use this ***unless*** the ***whole*** building is being sold or let
- **Classification of buildings**
  - a **dwelling** means a separate unit designed to provide living accommodation for a single household. This would imply that it does not share kitchen and bathroom facilities. Separate guidance is available for dwellings

[2] A part of a building designed or altered to be used separately is where the accommodation is suitable for separate occupation. For a non-dwelling 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. An example might be a unit in a shopping centre or a floor in an office building. 24 hour access to any common parts is not relevant to this definition.

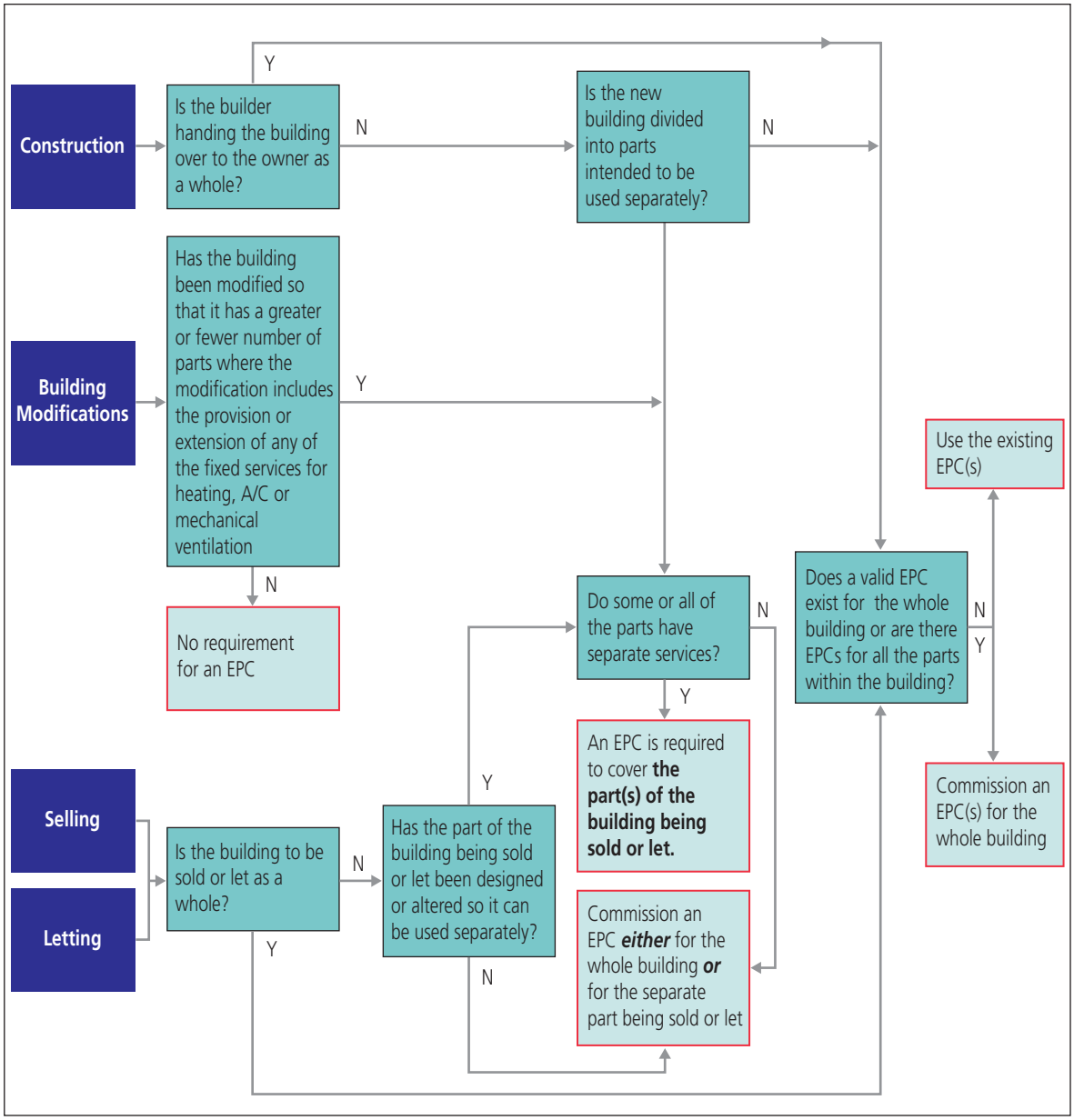
[3] To prepare an EPC for a part, designed or altered for separate use, in a building with a common heating system, the energy assessor will need information on the central plant efficiency.

  - a **non-dwelling** is a building that is not a dwelling. Only non-dwellings are covered in this guidance
  - rooms for residential purposes (please see glossary of terms) are ***not*** classified as dwellings. These are ***excluded*** from the requirement to provide EPCs on sale or rent. However, if the building containing the rooms for residential purposes is sold or let, it will require a non-domestic EPC
  - some buildings may contain dwellings and non-dwellings. ***Each*** dwelling (please see glossary of terms) must have its own EPC. Please also see section 4.2.1 A3-A5 and the glossary of terms where further clarification regarding buildings used for industrial or commercial purposes containing living accommodation is provided

- **Representative apartments or units**
  - EPCs for apartments or units designed or altered for separate use in blocks may be based on the assessment of another representative apartment or unit in the same block. For a part of a building to be defined as an apartment or unit it should be capable of separate occupation
- **Communal areas**
  - communal areas should be ignored when producing an EPC for an apartment or unit
  - when a building containing communal areas is sold or let, the communal areas may either be included in the EPC for the building or assessed separately to provide an EPC for the communal areas.
- **Use of energy to condition the indoor climate and the requirement for an EPC**
  - fixed services are any part of, or any controls associated with, fixed systems for heating, mechanical ventilation or air conditioning i.e. those services attached to the fabric of the building
  - if there is no intention of having fixed services and no ability to include fixed services to condition the indoor climate, then an EPC will not be required
  - if a building is to be let with fixed services, the EPC for the building should reflect the fixed services actually installed
  - if a building is to be let without fixed services, but there is an intention that fixed services will be installed, the EPC should be based on the building's use class under the planning legislation. This applies whether fixed services have ever been installed previously in the building, or whether the building is newly constructed on a "shell and core" basis. For the purposes of producing the EPC, the activity within the building should be specified in line with business activity typical of the use class and the most energy intensive fit-out adopted in line with Part L of the Building Regulations in force when the building was built

– energy used directly for heating or cooling a process is not taken to mean conditioning the indoor climate. Those buildings without any other conditioning would not require an EPC. See glossary of terms for industrial site and workshops with low energy demand.

Use the flowchart below to help determine whether your building requires an EPC:



Section 4 provides guidance on a number of common situations and how the regulations may apply.

It is the action of selling, letting or construction that triggers the requirement for an EPC. Therefore existing occupiers and tenants will not require an EPC unless they sell, assign or sublet their interest.

1.3 When Energy Performance Certificates are required

From **6 April 2008** those buildings that are not dwellings with a total useful floor area greater than 10,000m^2 (see glossary of terms for a definition) will require an Energy Performance Certificate on construction, sale or let.[4]

From **1 July 2008** those buildings that are not dwellings with a total useful floor area greater than 2,500m^2 (see glossary of terms for a definition) will require an Energy Performance Certificate on construction, sale or let.[4]

From **1 October 2008**, ***all*** remaining buildings that are not dwellings, save for a few excepted cases[5], will require an Energy Performance Certificate on construction, sale or let.[4]

Any building that was already on the market before the 6 April 2008 and 1 July commencement dates and remains on the market afterwards will not need an EPC until 1 October 2008. If it is sold or rented out in the meantime however, an EPC must be commissioned and then handed over as soon as reasonably practicable.

EPCs for the sale or letting of buildings that are not dwellings will be valid for 10 years, or until a newer EPC is produced for building, if sooner.

1.4 Other requirements of the Energy Performance of Buildings Directive

1. Display Energy Certificates (DECs)

   Public authorities, and institutions providing public services to a large number of persons, who occupy space in a building with a total useful floor area greater than 1,000m^2 and are visited by the public, must display a valid display energy certificate (DEC) at all times and have a valid advisory report in their possession.

   A DEC shows an **operational** rating which conveys the actual energy used by the building as well as the **asset** rating (if available) showing the intrinsic performance of the building.

   Only public authorities or institutions providing public services (those services traditionally associated with local or national government) **occupying** a building must display a DEC. Other private occupants of the same building are not required to display a DEC.

   Further guidance on DECs is available see www.communities.gov.uk/epbd

[4] For the purposes of the Regulations, the building size to be considered will be the size of any part designed or altered to be used separately that contains the area being sold or let.

[5] See paragraph 1.5 below.

2. Air-Conditioning Inspections

   An air-conditioning inspection is required if the effective rated output of systems within a building is more than 12kW:

   - if the system has an effective rated output of 250kW or more, the first inspection ***must be*** carried out by 4 January 2009
   - if the system has an effective rated output of 12kW or more, the first inspection ***must be*** carried out by 4 January 2011.

   Air-conditioning systems must be inspected at intervals not exceeding five years.

   Further guidance on air-conditioning inspections is available see www.communities.gov.uk/epbd

3. EPCs for dwellings:

   - for dwellings when sold (marketed sales requiring a HIP), this is a current requirement. This requirement is extended from 1 October 2008 to all other sales of dwellings
   - this requirement started from 6 April 2008 for dwellings when constructed
   - this requirement starts from 1 October 2008 for dwellings when rented.

1.5 Situations where an EPC is not required

EPCs are not required on construction, sale or rent for:

- places of worship
- temporary buildings with a planned time of use of less than two years
- stand-alone buildings with a total useful floor area of less than 50m^2 that are not dwellings (see glossary of terms for a definition of stand-alone)
- industrial sites, workshops and non-residential agricultural buildings with low energy demand (see glossary of terms for a detailed description).

EPCs are not required on sale or rent for buildings due to be demolished. The seller or landlord should be able to demonstrate that:

- the building is to be sold or let with vacant possession
- the building is suitable for demolition and the resulting site is suitable for redevelopment
- they believe, on reasonable grounds, that a prospective buyer or tenant intends to demolish the building (eg on evidence of an application for planning permission).

Chapter 2 What are Energy Performance Certificates

2.1 What is an EPC and what does it mean?

The EPC looks broadly similar to the energy labels now provided with vehicles and many household appliances. Its purpose is to indicate how energy efficient a building is. The certificate will provide an energy rating of the building from A to G, where A is very efficient and G is the least efficient. The better the rating, the more energy-efficient the building is, and the lower the fuel bills are likely to be. The energy performance of the building is shown as a Carbon Dioxide (CO_2) based index.

Each energy rating is based on the characteristics of the building itself and its services (such as heating and lighting). Hence this type of rating is known as an asset rating.

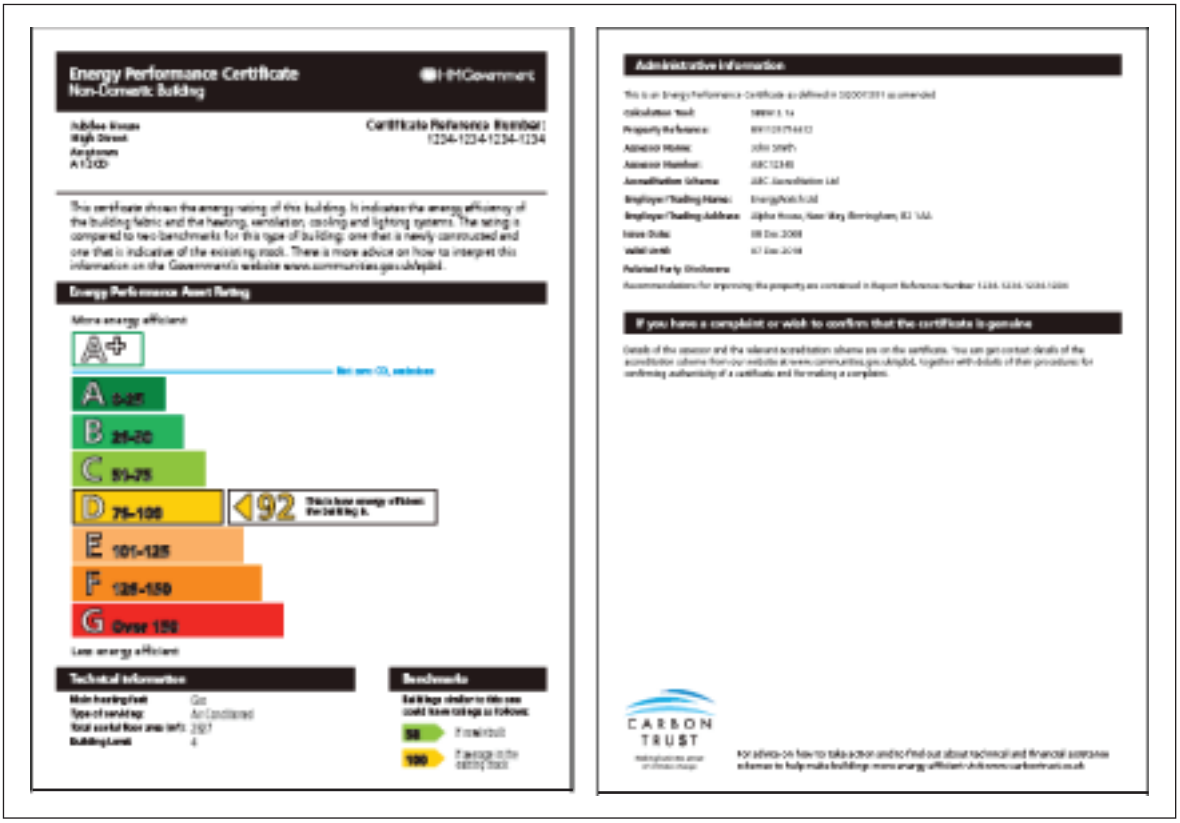
The asset ratings will reflect considerations including the age and condition of the building. It is accompanied by a recommendation report, which provides recommendations on using the building more effectively, cost effective improvements to the building and other more expensive improvements which could enhance the building's energy performance.

2.2 What an EPC for a non-dwelling contains

In addition to the asset ratings, EPCs must convey several other key pieces of information:

- **reference information** – this includes the unique certificate reference number (as stored in the central register), and the date of issue of the certificate
- **energy assessor details** – this includes the assessor's name, accreditation number, employer's name (or any trading name if self employed) and accreditation scheme
- **information on how to complain or how to confirm that the certificate is genuine** – the certificate will provide information on how to register a complaint about an unsatisfactory EPC and how to check the certificate is authentic.

The certificate is accompanied by a report which includes cost-effective recommendations to improve the energy ratings. For each improvement indicative paybacks are listed.



2.3 Registering EPCs

All EPCs are stored in a national register. The register is the official place for the storage of all EPCs and is the single source of EPC information for a building. Having a register helps to protect consumers. Those in possession of an EPC, such as building owners or tenants, can verify the authenticity of a certificate by using its reference number to check it against the EPC held on the register under that number.

Once EPCs have been registered they cannot be altered. However, EPCs that are in dispute may be annotated on the register to show that they are under investigation. As data is kept on the register for 20 years, more than one EPC may be stored over a number of years for one building. An EPC may be valid for up to 10 years. If there are other certificates for the building on the register that are less than 10 years old only the most recent certificate will be valid.

Energy assessors (through their Accreditation Schemes) lodge each EPC after they produce it, and each is given a unique certificate reference number. Access to the database is restricted, so only those who have the unique reference number can access the certificate registered for a particular building, apart from certain provisions allowing access to accreditation and enforcement bodies, and on an anonymised basis to government.

There are two separate databases within the register, one for dwellings and the other for non-dwellings.

The register is currently operated by Landmark Information Group Limited.

Chapter 3 Obtaining an Energy Performance Certificate

3.1 Responsibilities for providing an EPC on construction or modification of a non-dwelling

When a building being **constructed** is physically complete, it is the responsibility of the **person carrying out the construction** to give an EPC and recommendation report to the building owner and to notify Building Control that this has been done. Building Control will not issue a certificate of completion until they are satisfied this has been done.

If a building is **modified** to have more or fewer parts than it originally had and the modification includes the provision or extension of fixed services for heating, air conditioning or mechanical ventilation (ie those services that condition the indoor climate for the benefits of the occupants) then an EPC will be required. When the modifications are physically complete, it is the responsibility of the **person carrying out the modification works** to give an EPC and recommendation report to the building owner and to notify Building Control that this has been done. Building Control will not issue a certificate of completion until they are satisfied this has been done.

3.2 Responsibilities for providing EPCs when selling or letting a non-dwelling

As soon as a building is in the process of being offered for **sale**, it is the responsibility of the **seller** to make available an EPC to prospective buyers free of charge.

As soon as a building is in the process of being offered to **let**, it is the responsibility of the **prospective landlord** to make available an EPC to prospective tenants.

It is the responsibility of the seller or landlord offering the accommodation for sale or let to make an EPC available for their building. A lease assignment would be considered to be a sale and the assignor should provide the EPC.

The seller or landlord is responsible for ensuring there is an EPC for the building, or part of the building, being sold or let, even if an agent or another service organisation is acting on their behalf or providing an EPC. The seller or landlord should therefore ensure any agents acting on their behalf are complying with the Regulations.

As enforcement officers can request a copy of an EPC from a landlord or seller at any time up to six months after it was required, it would be prudent for sellers or landlords to retain their reference number so that a copy of an EPC can be obtained from the register if required.

For those considering letting or sub-letting a building, it is recommended that the availability of an EPC is ensured at an early stage to be ready for any future transaction. There are two ways this could be achieved:

- get an EPC for the whole building where there is a common heating system, negotiating as necessary with any head landlord (which may be more economic for all concerned)
- get an EPC for the part of the building you are letting or sub-letting. If you are letting a floor, for example, in a building with a common heating system, you may get an EPC done for just that floor. If you occupy a part designed or altered to be used separately and there is no common heating system you will need a separate EPC anyway.

It is the duty of every person with an interest in, or in occupation of, the building to co-operate with any seller or prospective landlord as far as is necessary to enable them to comply with any duty under the Regulations to make available an EPC, and allow access to any energy assessor they appoint.

3.3 Transactions not considered to be a sale or let

The purpose of providing an EPC during the sale or letting process is to enable potential buyers or tenants to consider the energy performance of a building as part of their investment. Not all transactions will be considered to be a sale or let to which the duties apply. These will include:

- lease renewals or extensions
- compulsory purchase orders
- sales of shares in a company where buildings remain in company ownership
- lease surrenders.

There may be other types of transaction that it might be argued do not require an EPC, for example, living accommodation at a workplace and tied to a job, or not-for-value transactions, but this will depend on the individual circumstances of any case.

3.4 Responsibilities for conducting energy assessments

The people able to **conduct** energy assessments and produce EPCs must be accredited energy assessors. Energy assessors can be self-employed, employees of service organisations such as estate agents, surveyors or energy companies, or employees of the landlord or owner[6].

Energy assessors must act in an independent manner and be a member of a Government approved accreditation scheme. Energy assessors are responsible for conducting an energy assessment, producing an EPC and lodging the EPC with their accreditation scheme.

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. As a general rule assessors are expected to visit non-domestic buildings in person to ensure that the data is accurate, although it is acceptable for energy assessors to use data gathered by others provided the conditions set out below on data gathering are met. Assessors will be responsible for the quality of the certificate regardless of whether they gathered the data themselves, and assessors who choose not to carry out a visit will need to be completely confident in the quality of the information used.

Where data gatherers are used for non-domestic EPCs:

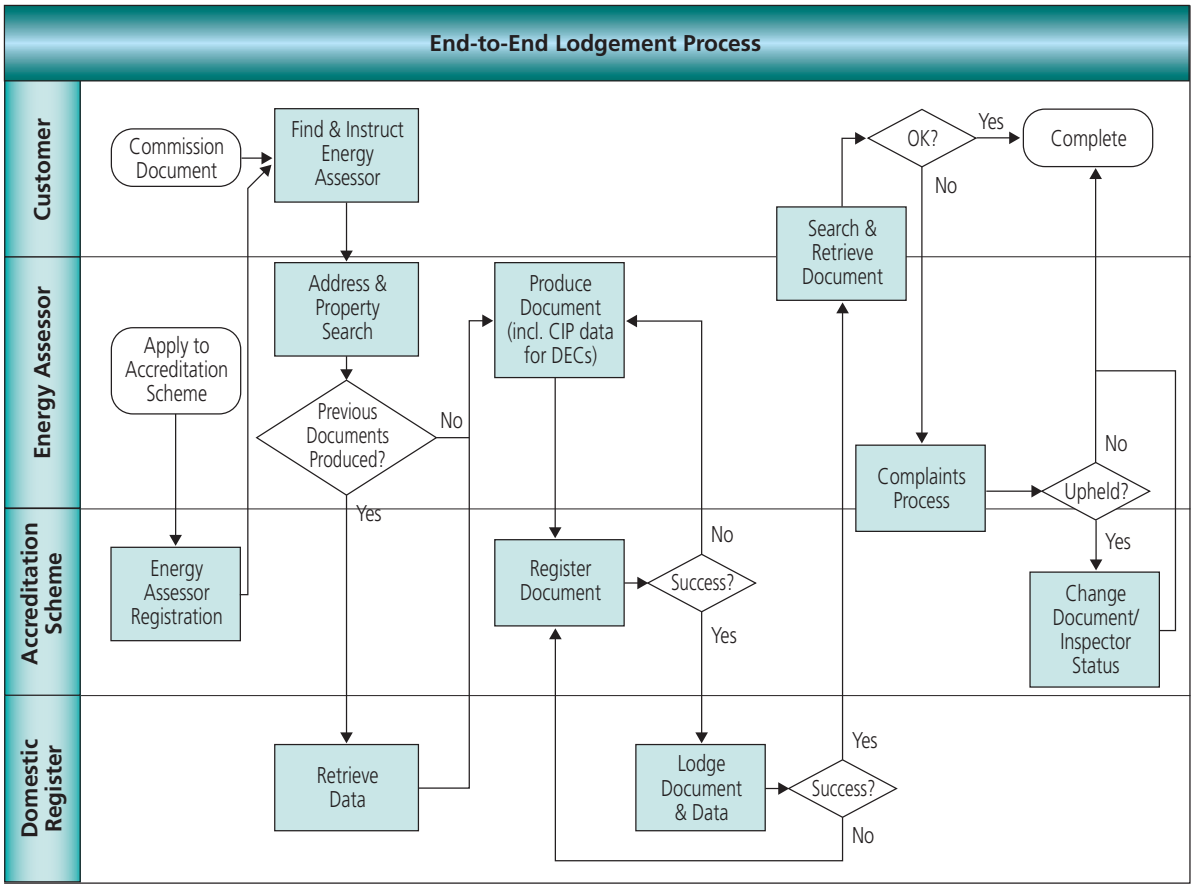
– the energy assessor is responsible for ensuring that such assistants are 'fit and proper', including being Criminal Record Bureau checked where required, have the correct insurances, and the technical ability to undertake those duties
– the energy assessor is responsible for all the actions, data and output as though he had undertaken the data gathering himself
– the energy assessor's responsibility for the final EPC and recommendation report is the same as though he had undertaken all the duties himself.

The accreditation scheme is responsible for ensuring certificates are properly registered and also for the quality of the certificate you receive. Section 3.7 provides more information about accreditation schemes and section 6 provides more information if you have a complaint or concern about an energy assessment or an EPC.

[6] An accreditation scheme must make adequate provison to ensure that energy assessment is carried out in an independent manner, so that special care will be required where assessors are employed by building owners, especially owners in the private sector.

3.5 Producing Energy Performance Certificates

The process for producing an EPC for a non-dwelling is as follows:



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

Once an energy assessor has been commissioned to produce an EPC, there are three main steps to performing the assessment, which are:

- gathering the relevant information about the building
- analysing the information and identifying different zones of the building
- entering the information into an approved software programme. The appropriate methods for commercial buildings are SBEM – Simplified Building Energy Model or DSM – Dynamic Simulation Model (even if the building was originally used for residential accommodation).

During the assessment the energy assessor will collect information about the building. This will include plans, dimensions of the building, its uses, the number of floors, the amount and type of glazing (ie single or double glazing), the heating systems and the fuel used.

This information will be fed into an approved software programme using a Government approved energy assessment method. The software produces the certificate and the recommendation report for the building.

The energy assessor will then record the certificate onto the national register via his or her accreditation body and provide the seller or prospective landlord with the EPC.

The EPC is now ready to be given to new building owners or made available to prospective buyers or tenants.

3.6 Collecting the information required for an Energy Performance Certificate

The energy assessor will need to understand the internal layout of the building and for what purposes it is designed to be used. This is to understand the energy demands of each individual space (zone) in accordance with its designed use.

The information that will be required to produce an EPC includes:

- the individual spaces or zones in use within the building, and their dimensions (either as verified from plans or as measured). This information is most readily provided by building plans
- the activities conducted within the zones. Examples of zones include retail space, office space, kitchens, storage etc
- the heating and ventilation services for each zone (including type of system, metering, controls, fuel used etc.)
- the lighting and controls used for each zone
- the construction of the fabric of the building and thermal efficiency of the materials used: roof, floors, walls and glazing.

If there are no plans for a building, the energy assessor will need to survey the building and gather the appropriate information. If you have up-to-date information and plans for your building this process will be less time-consuming. The energy assessor is responsible for ensuring the information used in the energy calculations is accurate and, even where detailed plans are available, may need to validate this information by making a site inspection.

3.7 Energy assessor accreditation

Government approved accreditation schemes monitor the quality of energy assessments and EPCs 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 scheme
- abide by the scheme's advice and guidance.

Energy assessors will need to be qualified for the type of building being assessed. For non-dwelling EPCs, the levels are:

- level 3 – simple, existing non-dwellings: small buildings such as converted houses or doctor's surgeries (using SBEM)
- level 4 – new and existing non-dwellings: eg small purpose-built office buildings (using SBEM)
- level 5 – new and existing complex non-dwellings: eg large office buildings or factories (using modelling tools eg DSM).

For further clarification, please see the glossary of terms.

Approved Accreditation bodies for energy assessors for non-dwellings are:

- BESCA
- HVCA
- BRE
- Chartered Institution of Building Services Engineers (CIBSE)
- Elmhurst
- EPC Limited
- National Energy Services
- Northgate
- Quidos
- Royal Institution of Chartered Surveyors (RICS)
- Stroma
- HIC Ltd
- NAPIT

3.8 Using EPCs in commercial transactions

The energy assessor has a duty of care under the Regulations, both to the seller or prospective landlord and to the prospective buyer or tenant, to carry out an energy assessment on a building with reasonable care and skill. This duty is enforceable for as long as the EPC subsequently produced remains valid.

Once an EPC has been produced for a building, it is valid for 10 years or until a newer EPC is produced. If an EPC is subsequently produced for part of a building, a previous EPC for the building as a whole (or for any larger part of the building) will remain valid, except for any separate transactions for the specific part covered by the newer EPC. Conversely, if an EPC is subsequently produced for a building as a whole, or a part of a building, any EPCs for smaller or different parts of the building will also remain valid.

For example, the landlord obtains an EPC for a whole office block. The tenant obtains an EPC for just the first floor. The landlord's EPC remains valid, except for transactions that relate solely to the first floor, in respect of which only the tenant's more recent EPC is valid. Conversely, if a tenant has obtained an EPC for one floor, that EPC remains valid even if the landlord subsequently obtains an EPC for the whole building (including the tenant's floor).

The EPC will be stored in the central register and subsequent owners or tenants can make the EPC available in the course of any transaction while it remains valid. It can only be accessed using the unique Certificate Reference Number.

If an energy assessor is proven to have been in breach of his duty under the Regulations or negligent in any other way, this is a matter that can be taken up in the first instance with their accreditation scheme before recourse to an action in civil law. Energy assessors will have professional indemnity cover against the eventuality that any person to whom they have a duty may suffer loss as a result of their actions.

If an EPC is subsequently alleged to have been produced fraudulently, this is a matter for criminal law, to be pursued by making a complaint to the Police.

Chapter 4 Applying the regulations in practice

4.1 Providing information to prospective buyers and tenants

A valid EPC and recommendation report must be made available *free of charge* by the seller or landlord to a *prospective buyer or tenant* when non-dwellings are sold or let. This must be at the earliest opportunity and no later than:

- when any written information about the building is provided in response to a request for information received from the prospective buyer or tenant
- when a viewing is conducted
- in any event, before entering into a contract to sell or let.

In the case of auctions, the EPC need not be made available in the catalogue. If however a photograph accompanied by a floor plan or description of room sizes, or a floor plan and description of room sizes is included in the catalogue, an asset rating will need to be shown. Moreover, an EPC must be available in a pack and made available to prospective buyers or tenants at the earliest opportunity as in the circumstances described above.

Whilst the Regulations state that an EPC should be provided free of charge to prospective buyers or tenants, a landlord may organise an EPC for the whole building and may be able to recover the cost of *producing* a certificate via the service charge. However, this will depend on how the lease is drafted. The Code of Practice on Service Charges (published by RICS) provides guidance on best practice: www.servicechargecode.co.uk

An EPC does not have to be made available if the seller or prospective landlord believes on reasonable grounds that:

- the prospective buyer or tenant is unlikely to have sufficient funds to purchase the building or is not genuinely interested in buying or renting a building of that type
- the seller or prospective landlord is unlikely to be prepared to sell or rent the building to the prospective buyer or tenant, although this does not authorise unlawful discrimination.

4.2 Building use, tenancy arrangements and the requirements for EPCs

The use and occupancy patterns of a non-dwelling can be complex. This section highlights a number of situations that frequently occur and the consequent requirements for an EPC.

EPC certification for units or parts of a building designed or altered for separate use may be based on the assessment of another **representative** unit or part in the same block.

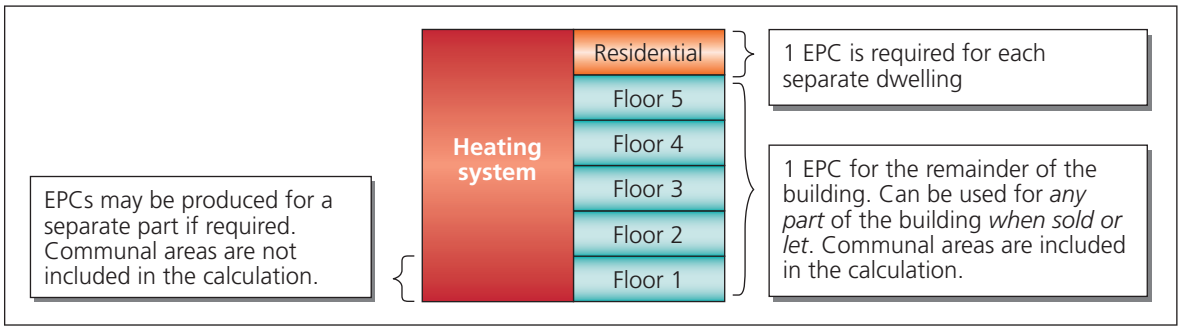
Any stand-alone units (see glossary of terms for a definition) in the following examples that are less than 50m^2 will not require an EPC.

4.2.1 Offices blocks and mixed use buildings

Office space can be let floor by floor, a number of floors or part of a floor. If a building has a common heating system, then an EPC may be prepared for the whole building (other than any separate dwellings within the block, which will each require their own EPC) and used for any part when sold or let. Common areas are included in the calculation.

A.1. BLOCK WITH COMMON HEATING SYSTEM

If an office building has a common heating system, the seller or landlord should provide an EPC for the whole building (other than for any separate dwellings within the block, which will each require their own EPC) . It is permissible to prepare an individual EPC for a part of a building, if so wished. An EPC for a single unit or apartment may be based on an assessment of a similar representative unit or apartment in the same block (see section 5.4 for more details).



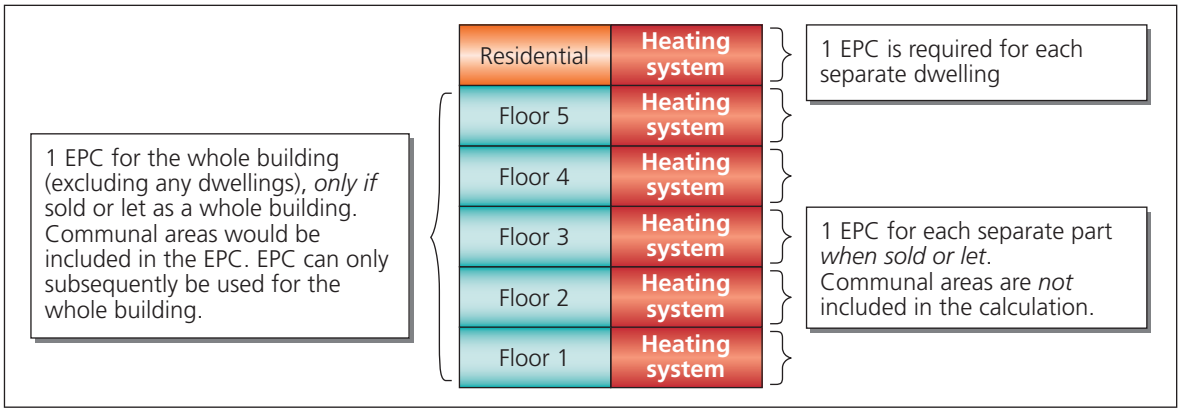
A.2. BLOCK WITH INDEPENDENT HEATING SYSTEMS

It is permissible to provide EPCs for each of the individual parts, plus an EPC for the conditioned communal areas when selling or letting the whole building or provide one EPC for the whole building.

Every separate dwelling will require its own EPC. The energy calculation method for dwellings is SAP or RdSAP, and the energy assessors carrying out this work must be accredited to carry out assessments on dwellings. The

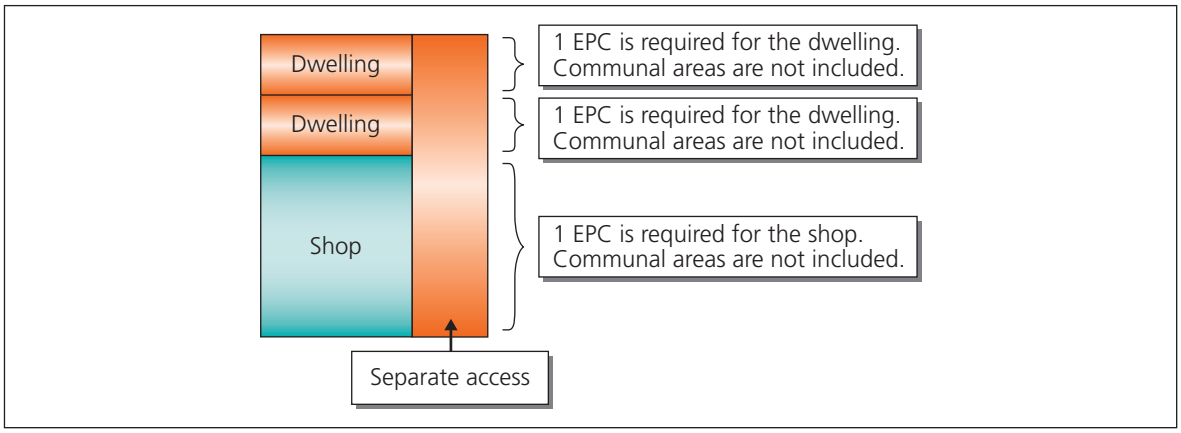
non-dwelling part(s) of the building should be assessed using either SBEM or DSM and the energy assessor must be accredited to carry out assessments on non-dwellings. It is appropriate that when any communal areas (including those serving the residential space) are assessed, this is done using SBEM or DSM as the methodology used for dwellings, SAP, will only cover a dwelling. SBEM and DSM must be used to assess a building that includes rooms for residential purposes.

Again, an EPC for a single unit or apartment may be based on an assessment of a similar representative unit or apartment in the same block (see section 5.4 for more details).



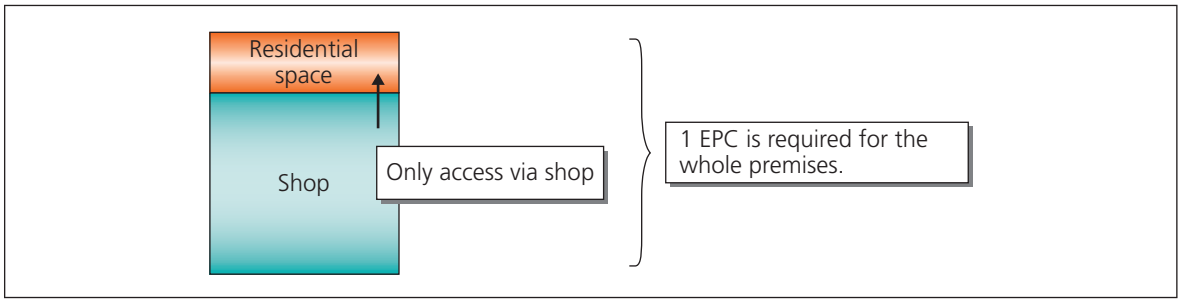
A.3. SHOP WITH DWELLINGS ABOVE

In the example below the residential space above the shop has separate access and is clearly designed to be used as a dwelling separately from the conduct of business in the shop, whether the two parts are sold or let together or separately. In this case the residential space should have its own EPC (using SAP or RdSAP as appropriate).



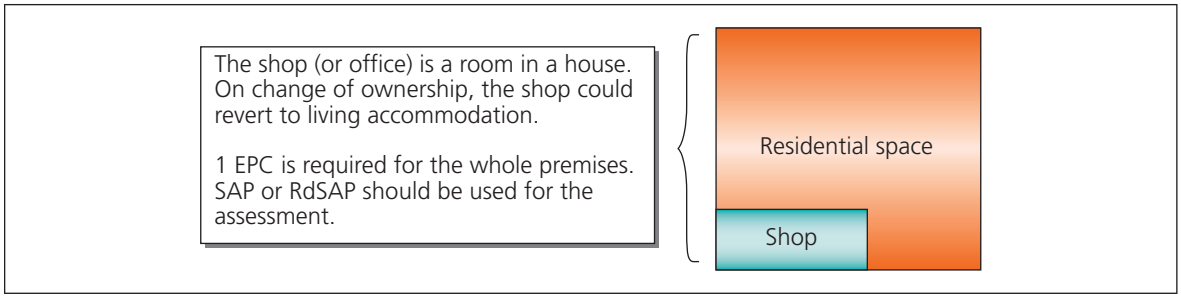
A.4. SHOP WITH RESIDENTIAL SPACE ABOVE

In the example below, the residential space above the shop can only be accessed via the shop. In this case the upper part is not designed or altered for use as a separate dwelling and should therefore be considered and assessed with the shop as a single building, for which SBEM will be more appropriate.



A.5. COMMERCIAL OR INDUSTRIAL BUILDING WITH SIGNIFICANT LIVING ACCOMMODATION

In the example below, the shop is formerly a room in a dwelling. If the building is subsequently sold or let and could be used as a dwelling it should be assessed as a dwelling using SAP or RdSAP (as appropriate). This situation is where the living accommodation is a significant proportion (i.e. more than half) of the total area of the building. Please see the glossary of terms for buildings used for industrial or commercial purposes.

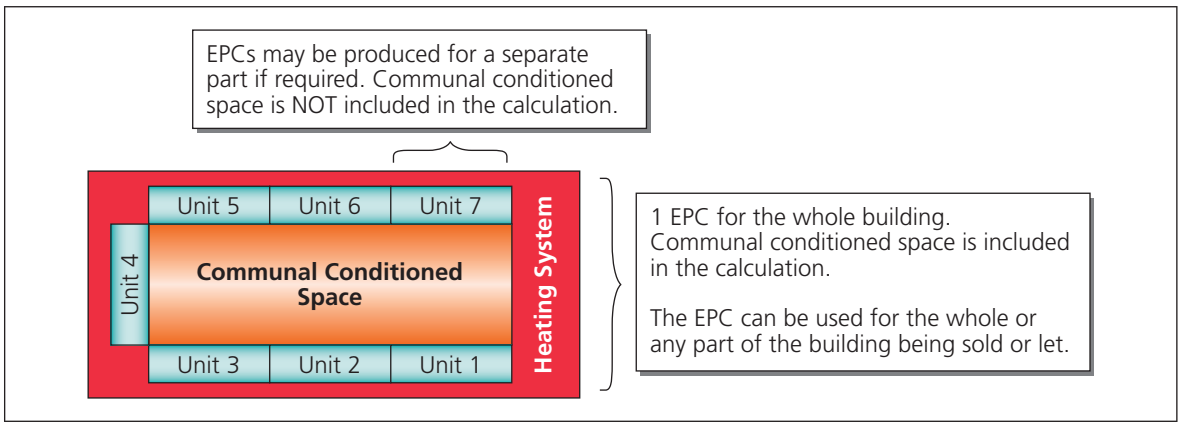


4.2.2 Shopping centres, retail units and concourses

Again, an EPC for a single unit may in all cases be based on an assessment of a similar representative unit in the same block (see section 5.4 for more details).

B. Centres with common heating systems

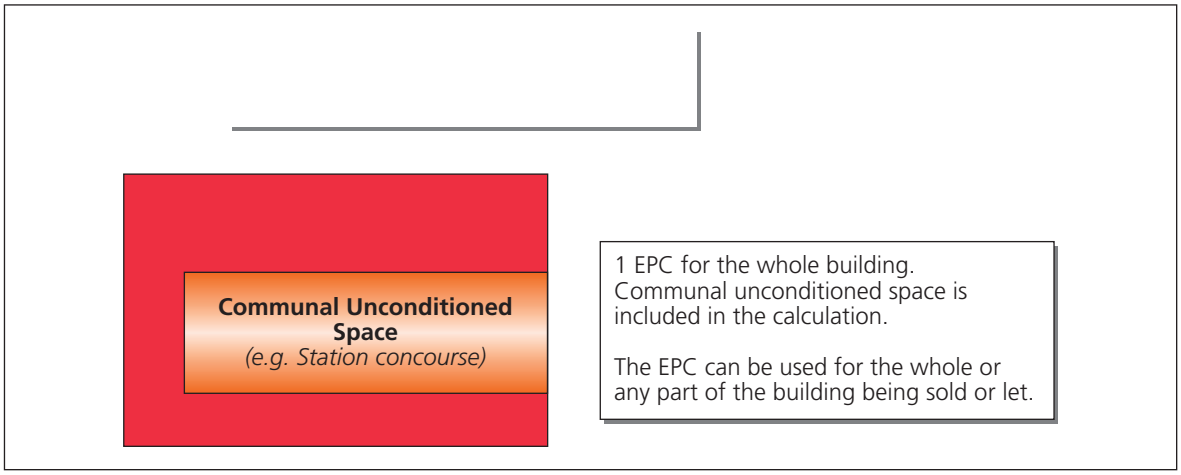
B.1. CENTRES WITH CONDITIONED COMMUNAL SPACE



If, unlike in the example above, a unit does not directly access the concourse or mall (ie does not share conditioning) and it does not have its own heating

or the ability to have its own heating, then it will not require an EPC as it will not be considered to be a building for the purposes of the EPBD Regulations.

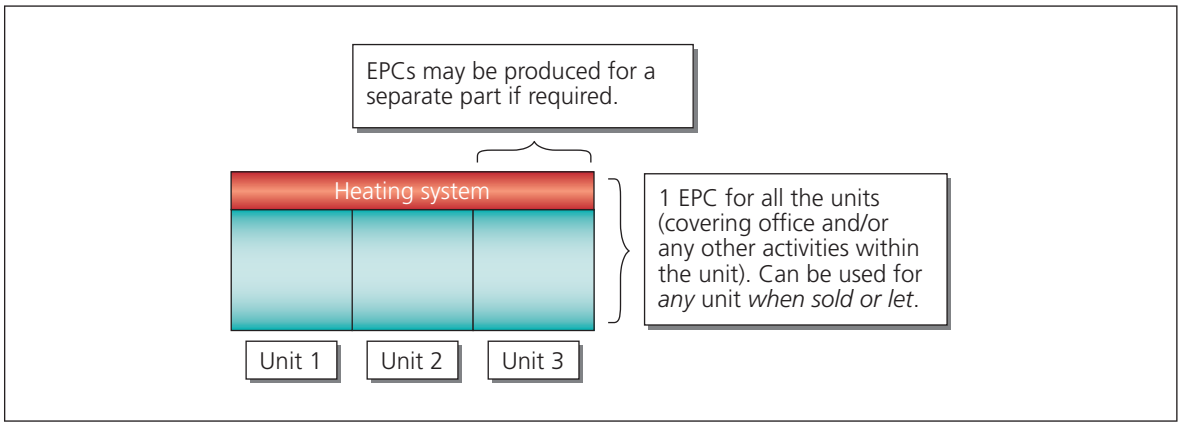
B.2. CENTRES WITH UNCONDITIONED COMMUNAL SPACE



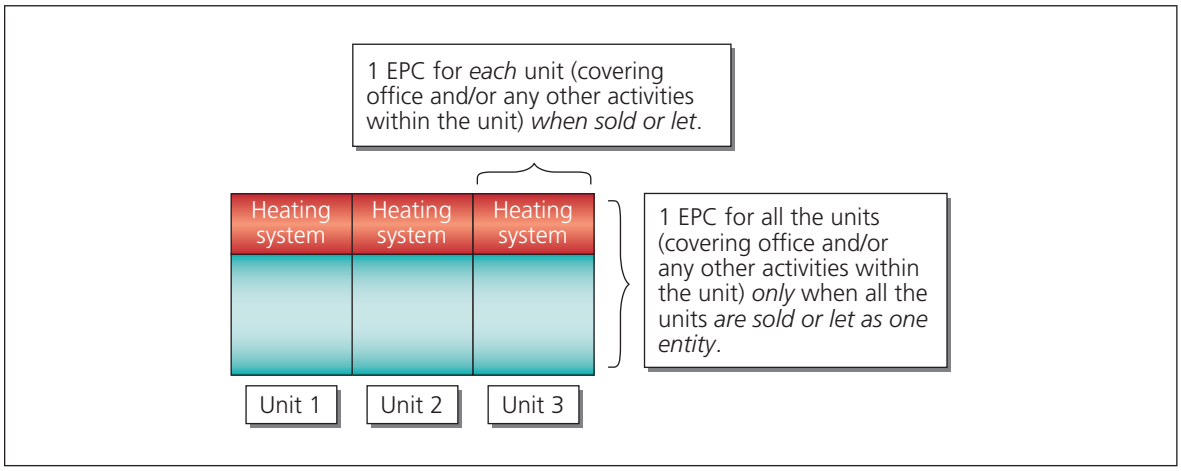
4.2.3 Industrial units in blocks

Any stand-alone units (see glossary of terms for a definition) that are less than 50m^2, will not require an EPC.

D.1. UNITS WITH A COMMON HEATING SYSTEM

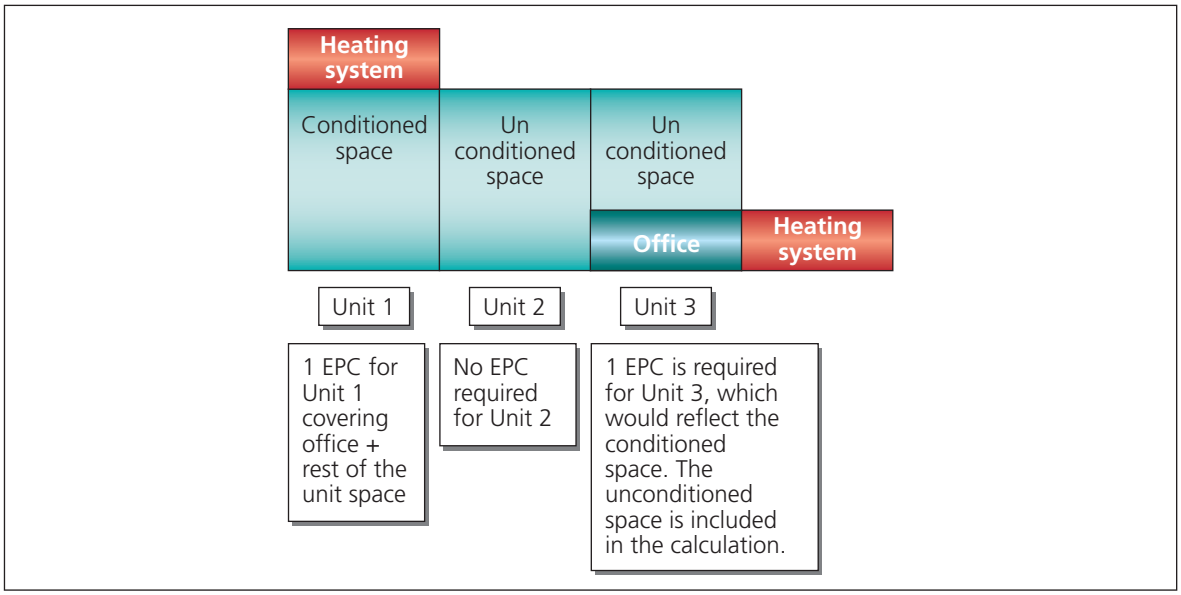


D.2. UNITS WITH INDEPENDENT HEATING SYSTEMS



As in the case of C.1 and C.2, it is permissible to provide EPCs for each of the individual parts, plus an EPC for the conditioned communal areas when selling or letting the whole building or provide one EPC for the whole building.

D.3. UNITS WITH A VARIETY OF HEATING SYSTEMS AND BOTH CONDITIONED AND UNCONDITIONED SPACE



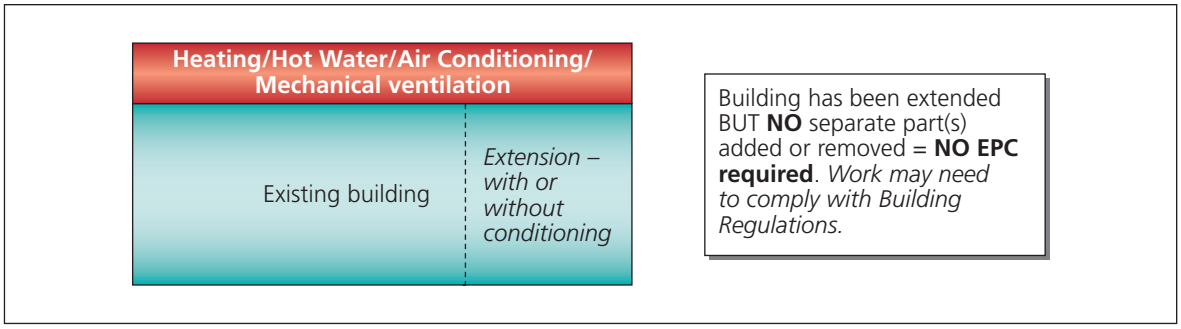
As in the case of C.1 and C.2, it is permissible to provide EPCs for each of the individual parts, plus an EPC for the conditioned communal areas when selling or letting the whole building or provide one EPC for the whole building.

4.2.4 Modifications to a building

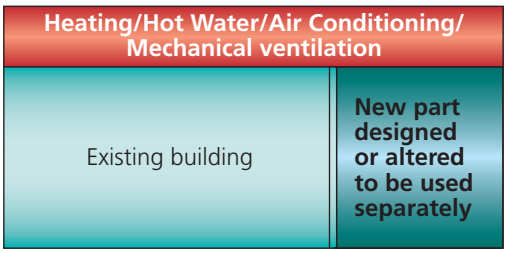
The EPB Regulations have modified Regulation 17E of the Building Regulations so that if the building is modified so that it will have more or fewer parts that are designed to be used separately, and the modification includes the provision or extension of any of the fixed services for heating, hot water, air conditioning or mechanical ventilation, then an EPC must on completion of the work be provided to the owner of the building by the person carrying out the work.

An internal refit with new heating, hot water, air conditioning or mechanical ventilation etc., would not trigger the requirement for an EPC, unless the building were also converted so as to comprise more or fewer parts for separate use. Any refit will, however, be subject to such of the Building Regulations as are applicable to the work.

E.1. BUILDING WITH EXTENDED CAPACITY BUT WITH NO PARTS ADDED OR REMOVED

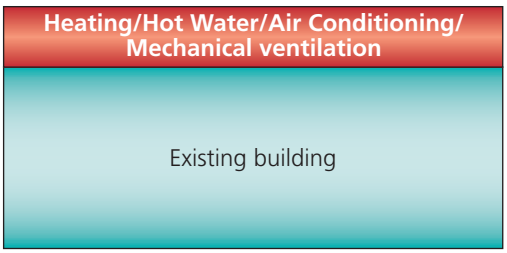


E.2. BUILDING WITH EXTENDED CAPACITY AND NEWLY DIVIDED INTO MORE OR FEWER PARTS – EXTENDED FIXED SERVICES



Building has been extended with a new separate part added AND provision made for heating/hot water/air conditioning or mechanical ventilation = **EPC is now required for the building**.

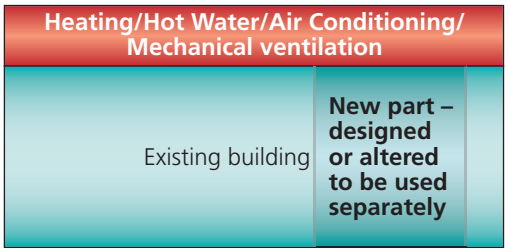
E.3. BUILDING WITH AN INTERNAL RE-FIT



Building has had a complete internal refit. New heating/hot water/air conditioning or mechanical ventilation + **NO** parts added or removed = **NO EPC is required**. *Work may need to comply with Building Regulations ADL2B – Conservation of fuel and power (existing dwellings other than dwellings).*

In the case above, there is no requirement for an EPC. However where the accommodation has been renovated eg upgraded heating or change of use, it would be preferable to have an updated EPC, even though not required.

E.4. BUILDING CONVERTED INTO MORE OR FEWER PARTS

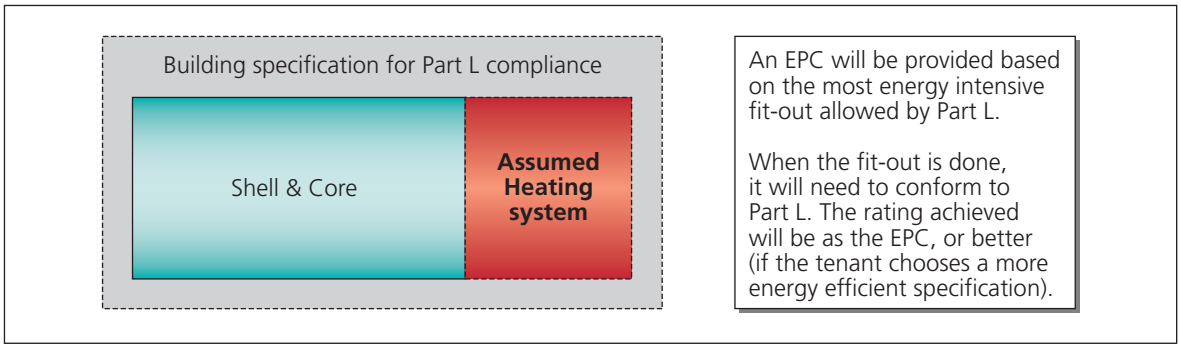


Building is the same size. Modification has created new part AND provision made for heating/hot water/ air conditioning or mechanical ventilation = **EPC is now required for the building**.

In this example the building is the same size but has more or fewer parts designed or altered to be used separately, and the modification includes the provision or extension of heating/hot water/air conditioning or mechanical ventilation. It now requires an EPC.

4.2.5 Shell and core buildings

For shell and core buildings not all the services will be installed (especially lighting, mechanical ventilation and cooling) at the point where the building is sold or let.



In the case of units that are let as bare structures without services at all, but where they will be fitted out and there is the expectation that energy will be used to condition the indoor climate, an EPC should be provided.

The EPC should be based on the maximum design fit out specification as used for compliance with Part L of the Building Regulations (in respect of the building's use class in planning legislation). Part L ensures that building work conforms to energy performance standards. Where insufficient information is supplied (ie in this case there are no services installed), Part L defaults to the 'worst' energy rating allowed under Part L. Therefore the most energy intensive fixed services fit-out allowed under Part L will be assumed. Any subsequent fit-out will need to comply with Part L of the Building Regulations. The services installed will either be as assumed or more energy efficient if the tenant chooses a more energy efficient specification.

4.3 Situations where an EPC may be unobtainable in time

The relevant person will not be liable to a penalty charge notice:

- in a sale or rental where a request for an EPC has been made at least 14 days before required and despite all reasonable efforts and enquiries, a valid EPC is not in the possession or control of the seller or prospective landlord. The EPC should nonetheless be made available to prospective buyers or tenants as soon as the seller or prospective landlord has it; or
- in a rental:
  - where a prospective tenant was seeking to rent the building in an emergency requiring his urgent relocation
  - the landlord did not have in his possession a valid EPC at the time of letting
  - there was insufficient time for the prospective landlord to be reasonably expected to have obtained an EPC before letting the building; and
  - the landlord has given a valid EPC to the tenant as soon as reasonably practicable after letting the building.

Chapter 5 Assessing the energy performance of a building

5.1 What contributes to the energy performance of a building

The energy rating of a building is a complex calculation that is based on a combination of factors. The key factors are:

- the type of construction of the building (including walls, roofs, floors and glazing)
- whether parts (zones) of the building are used for different purposes eg office, factory etc, and the occupancy profile for each zone
- heating, cooling, ventilation and hot water systems used
- lighting.

The energy performance of non-dwellings is shown as a CO_2 based index.

The CO_2 based rating a building receives depends on the energy used for space heating, water heating, ventilation and lighting, less any energy generated from energy generation technology installed in the building (such as solar water heating). The lower the number (on a scale of 0 to 150+), the lower the typical CO_2 emissions.

The rating is adjusted for the total useful floor area of a building (see glossary of terms for a full definition) so it is independent of size for a given type of building.

The calculation process compares the carbon emissions of the building with those of a 'notional' building. The notional building is an equivalent building (i.e. a building of the same size, shape and use as the actual building) constructed to 2002 Building Regulation standards.

5.2 What an energy assessment involves

Only accredited software may be used to assess the energy performance of a building and produce the EPC. The software will either be based on the SBEM or be a DSM.

The SBEM or DSM software assesses the energy demands of each individual space in the building in accordance with the activity conducted within that space (examples being office space, kitchens, storage space etc). Different

activities can result in different periods of occupancy and different required temperatures, as well as varying requirements for lighting and hot water supply. The energy consumption and carbon dioxide emissions are calculated by considering these demands in relation to the details of the building services.

The energy assessor will need to understand the internal layout of the building and for what purpose it is used. The energy assessor will need to validate (via plans and/or physical survey) zone distances, thermal insulation and building services.

The SBEM software will use the information provided by the assessor and standard performance tables and will produce the EPC and recommendation report.

5.3 Recommendations with an Energy Performance Certificate

The recommendation report that is included with an EPC will help owners and occupiers to improve the energy efficiency of a building. The recommendations only include those improvements that are appropriate for the building that has been assessed. For each recommendation indicative paybacks are noted. The recommendations are provided in four categories i.e. those:

- with a short term payback – less than three years
- with a medium term payback – between three and seven years
- with a long term payback – greater than seven years
- other recommendations (based on the energy assessor's knowledge).

5.4 Assessment of representative apartments or units

Certification for apartments or units in blocks can be based on the assessment of another unit in the same block. Representative units should all be in the same building or block. In terms of what makes one unit representative of another will be down to the judgement of the assessor as to whether the data used for one building would accurately reflect another. Material facts may include age and construction of property, orientation, position within the block, type of heating, insulation and glazing.

If one unit in a block were surveyed in detail the assessor can copy the data model to prepare an EPC for another. The assessor needs to be satisfied that they are the same (or make any adjustments as required) and then submit the data to produce an EPC for the second unit. Where a number of assessments are based on the assessment of another representative apartment or unit, the Accredited Energy Assessor will need to visit a sufficient sample of the apartments or units to verify that they are indeed representative.

Chapter 6 Consumer protection and enforcement

6.1 Checking the authenticity of an Energy Performance Certificate

An EPC should be properly recorded, by the energy assessor, in the central register for non-dwellings which contains all EPCs. An EPC is identified by a unique reference number that relates only to your premises.

If you have commissioned an EPC for your building you will receive a copy of the certificate.

If you have been given an EPC 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 you have any concerns regarding the authenticity of the information contained within the certificate, you should contact the accreditation body of your energy assessor. The energy assessor details, their accreditation scheme and their membership number should be on the certificate.

Neither an EPC nor a recommendation report is authentic unless it has been lodged in the register.

6.2 Checking the authenticity of your energy assessor

All energy assessors must be accredited.

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 which provides a national register of accredited energy assessors. This will allow you to search on the energy assessor's name or accreditation scheme membership number
- ask your energy assessor which accreditation scheme they are a member of (and their membership number). The accreditation scheme can confirm that your energy assessor is accredited to practise as an energy assessor.

  If you want to find a suitably accredited energy assessor in your area to provide you with an EPC, use www.ndepcregister.com. This will allow you to search for a list of accredited assessors in your area that you can contact to do your energy assessment. Ensure the assessor is accredited

for the type of building being assessed. See section 3.7 for details of qualification levels and accreditation schemes.

6.3 Protecting Energy Performance Certificate information

The information in an EPC is about a building and is provided to the relevant person (usually the landlord or owner of the building) by the energy assessor. Access to the EPC in the register is primarily via the report reference number on the certificate. Anyone in possession of the report reference number can access the EPC. Other disclosures from the register can be made only to accreditation schemes to which the maker of the document concerned belonged, to enforcement authorities, and on an anonymised basis to the Government.

Restrictions also apply to others having access to EPCs, recommendation reports, any information derived from either, and any data collected to prepare either. A seller or prospective landlord or those acting on their behalf may disclose these to other parties. The Regulations, however, protect them from unauthorised disclosure to a **third party** eg by a company using the EPC without permission to market their products. Unauthorised disclosure is an offence punishable by a fine. The EPC, recommendation report and any information derived from them or data collected to prepare them can only be disclosed in the following circumstances:

- by an owner or tenant, or those acting on their behalf
- for the purposes of assisting prospective buyers or tenants make decisions on whether to buy or rent the building
- to accreditation schemes in connection with their accreditation functions
- to enforcement bodies in connection with their duties in enforcing the Regulations
- to the Secretary of State on an anonymised basis for monitoring the application, compliance and enforcement of the new Regulations and for statistical or research purposes
- in complying with obligations under the Regulations or under the law relating to Home Information Packs
- for the purposes of preventing or detecting crime, apprehending or prosecuting offenders, establishing, exercising or defending legal rights or complying with a court order.

6.4 Complaints

If you have a complaint about the availability or quality of an EPC or about an energy assessor or energy assessment, you should contact the following people:

- **EPCs on sale or rental** – for complaints regarding the availability and validity of an EPC for sale of a marketed building, contact your local Trading Standards Officers. Trading Standards Officers have the power to act on your complaints
- **EPCs for newly constructed or modified properties** – for complaints regarding the availability and validity of EPCs produced by the builder when construction work is completed, contact Building Control at the relevant local authority
- **Quality or accuracy of the EPC and its recommendations** – for complaints regarding the quality and accuracy of the EPC and the recommendation report, contact the accreditation body of the energy assessor who produced the EPC. Contact details can be found on the EPC
- **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 EPC. Contact details can be found on the EPC.

If you suspect that your EPC is subject to fraud, then the matter should be referred to the police.

6.5 Penalties for not having an EPC

Local authorities (usually by their Trading Standards Officers) are responsible for enforcing the requirement to have an EPC on sale or let of a building. Failure to make available an EPC when required by the Regulations means you may be liable to a civil penalty charge notice. Trading Standards Officers may act on complaints or undertake investigations. They may request you to provide them with a copy of the EPC and recommendation report that you were under a duty to provide. If asked, you must provide this information within seven days of the request or be liable again to a penalty charge notice. A copy of an EPC can be requested at any time up to six months after the last day for compliance with when the duty was to make it available.

The penalty for failing to make an EPC available to any prospective buyer or tenant when selling or letting non-dwellings is fixed, in most cases, at 12.5 per cent of the rateable value of the building, with a default penalty of £750 where the formula cannot be applied. The range of penalties under this formula are set with a minimum of £500 and capped at a maximum of £5,000.

If you are issued with a penalty charge notice and you believe it should not have been issued 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 from the local authority.

You have a defence against a penalty charge notice if you made a proper request for an EPC to an appropriate person at least 14 days before it was required and despite all reasonable efforts you have not received a valid EPC at the relevant time, or where you rent to a tenant in an emergency requiring his urgent relocation (see section 4.3).

Chapter 7 Questions and Answers

How long are EPCs valid for?

An EPC for a non-dwelling will be valid for 10 years or until replaced with a newer one.

How much will an EPC cost?

The price of EPCs will be set by the market and market demand. It is likely in practice that the cost will vary according to a number of factors including size, location and age of the building.

Do I need a new EPC every time I let my building?

As long as a valid EPC exists for the building, you can provide this to prospective tenants. An EPC is valid for 10 years and during this period you can provide the same EPC to prospective tenants. This EPC will no longer be valid if a newer EPC has been registered.

Do I need a new EPC every time I sell a building?

As long as a valid EPC exists for the building, you can provide this to prospective buyers. An EPC is valid for 10 years and during this period you can provide the same EPC to prospective buyers. This EPC will no longer be valid if a newer EPC has been registered.

Can a prospective tenant or buyer waive their right to receive an EPC?

The relevant person has a duty to make available an EPC to a prospective buyer or tenant and will be liable to a penalty charge if he fails to do so, irrespective of whether the prospective buyer or tenant purports to waive an entitlement to receive the certificate.

Do I need an EPC if I have exchanged contracts to sell or let before the date on which the Regulations apply to my building, but have not yet completed the transaction?

The last point at which the duty to make available an EPC may be satisfied is before a prospective buyer or tenant enters into a contract to sell or rent the building ie upon exchange of contracts. The Department considers that this

is the point which determines whether or not the Regulations are in force in relation to a transaction. In this case the contract has been exchanged before the date on which the Regulations apply to the building and the duty to make available an EPC will not arise.

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. It is likely that estate agents, energy suppliers and other large companies will also be able to provide EPCs. An energy assessor should always be able to provide details of the accreditation scheme (see the list below) of which they are a member and their membership number.

What software can be used to produce EPCs?

Only software approved by Communities and Local Government can be used to produce EPCs.

How can I check if my energy assessor is properly qualified?

The accreditation bodies ensure their members are properly qualified and competent to conduct assessments. If you wish to check the accreditation details of your assessor, you should contact their accreditation body who should be able to verify that they are accredited to practise as an energy assessor. The website www.ndepcregister.com only shows properly qualified and accredited energy assessors. You should check they are suitably qualified for the type of building being assessed.

Do I have to act on the recommendations?

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 make it more attractive to potential buyers or tenants in the future.

What if a building is required urgently for rental and there is no time to commission an inspection?

This is permissible under the regulations if there is an emergency requiring a tenant's urgent relocation. An EPC should be provided as soon as reasonably practicable after renting out the building.

I'm selling a building for demolition – do I need an EPC?

If you can demonstrate the building is suitable for demolition and the resulting site is suitable for redevelopment and you believe on reasonable grounds that the prospective buyer or tenant intends to demolish the building, you do not need to provide an EPC. Generally this can be demonstrated by having the relevant planning permission or evidence that planning permission has been applied for.

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".

A **stand-alone** building is defined as a building that is free standing i.e. entirely detached.

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 guidance issued to surveyors by the RICS. 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.

Buildings that are **industrial sites and workshops with low energy demand**. These include buildings, or parts of buildings designed to be used separately, whose purpose is to accommodate industrial activities in spaces where the air is not conditioned. Activities that would be covered include foundries, forging and other hot processes, chemical process, food and drinks packaging, heavy engineering and storage and warehouses where, in each case, the air in the space is not fully heated or cooled. Whilst not fully heated or cooled these cases may have some local conditioning appliances such as plaque or air heaters or air conditioners to serve people at work stations or refuges dispersed amongst and not separated from the industrial activities.

Non-residential agricultural buildings with low energy demand include buildings, or parts of buildings designed to be used separately, that are heated for a few days each year to enable plants to germinate but are otherwise unheated.

A **dwelling** means a self-contained unit designed to provide living accommodation for a single household. This would imply that it does not share kitchen and bathroom facilities.

A **non-dwelling** is a building that is not a dwelling.

If a **dwelling** has been altered to enable parts to be used for **industrial or commercial purposes** (eg a workshop or an office), it should be treated as a dwelling if the industrial or commercial part could revert to domestic use, without significant alteration, on change of ownership. This could be the case if:

a) there is direct access between the industrial or commercial space and the living accommodation; and

b) both are contained within the same thermal envelope; and

c) the living accommodation occupies a substantial proportion of the total area of the building (eg a small manager's flat in a large non-domestic building would not mean the whole should be treated as a dwelling).

Significant alterations are those alterations that are covered by the Building Regulations.

Rooms for residential purposes are not dwellings. A **room for residential purposes** means a room, or a suite of rooms, that is not a dwelling-house or an apartment and that is used by one or more persons to live and sleep and includes a room in a hostel, an hotel, a boarding house, a hall of residence or a residential home, whether or not the room is separated from or arranged in a cluster group with other rooms, but does not include a room in a hospital, or other similar establishment, used for patient accommodation. For the purposes of this definition, a 'cluster' is a group of rooms for residential purposes that is:

a. separated from the rest of the building in which it is situated by a door that is designed to be locked; and

b. not designed to be occupied by a single household.

Level 3 and 4 buildings

Level 3

Level 3 and level 4 buildings may both be assessed using SBEM. Currently the only distinction between these two levels is on the basis of HVAC systems. A level 3 building includes frequently occurring characteristics such as simple heating systems, simple natural ventilation and small comfort cooling systems. Level 3 does not require the candidate to demonstrate competence in new build.

Frequently occurring characteristics are defined in the NOS in terms of HVAC, fabric and lighting. **(i), (ii) and (iii)** cover HVAC:

(i) simple heating systems (Boiler Systems <100kw)

(ii) simple natural ventilation

(iii) small comfort cooling systems (up to 12kw)

We interpret

(i) to refer to the size of the total boiler system, so that 2 linked boilers of 75kW is level 4. Where the heating is not from boilers, we take it to refer to the size of the individual heater.

(ii) to mean opening windows and basic mechanical ventilation (extract tab only)

(iii) to refer to the total for more than one unit (as per boilers). So level 3 includes split systems cooling one room or, say, one shop with display and store room cooled by one unit.

Frequently occurring characteristics defined in the NOS (at **(iv) and (v)**) also provides definitions based on fabric and lighting, but they are not currently applicable (since they not defined in the approved methodology):

(iv) typical fabric as defined in the approved methodology

(v) typical lighting systems as defined in the approved methodology

Level 4
Level 4 buildings are all buildings that have **any** HVAC services that are not defined in the "frequently occurring" list. In practice the following would be classified as level 4 HVAC:

- linked boilers totalling >100kw
- multi split cooling systems and VRF systems
- Central air conditioning: AHU, All-air, Air/water, Chillers

SBEM – Simplified Building Energy Model

SBEM is a computer program that provides an analysis of a building's energy consumption. The SBEM tool is designed to cover buildings that are not dwellings. It has been adopted by government as part of the UK national methodology for calculation of the energy performance of buildings. It is used also to demonstrate compliance for dwellings with Part L of the Building Regulations 2000 (in England and Wales). For more information visit: www.ncm.bre.co.uk/.

DSM – Dynamic Simulation Model

A Dynamic Simulation Model is a software tool that models energy inputs and outputs for different types of building over time. In certain situations, SBEM may not be sophisticated enough to provide an accurate assessment of a building's energy efficiency. In these cases Government-approved proprietary dynamic simulation models may be used. Communities and Local Government will provide such an approval.

SAP – Standard Assessment Procedure

SAP is the Government's Standard Assessment Procedure for energy assessments of dwellings. The current version of SAP, SAP 2005, has been adopted by Government as part of the England and Wales national methodology for calculation of the energy performance of buildings. It is used to demonstrate compliance for dwellings with Part L of the Building

Regulations 2000 (in England and Wales). For further information visit: www.projects.bre.co.uk/sap2005/

RdSAP – Reduced Data Standard Assessment Procedure

RdSAP is the new Government-approved standard assessment procedure for energy assessments of existing dwellings. A full SAP assessment requires many data items that cannot be seen in a survey (or take too long to collect). RdSAP is an industry-agreed standard set of data items and a standard way of inferring the missing data. For more information visit: www.nher.co.uk/pages/insight/rdsap.php or www.rdsap.info.

Annex A

Further Sources of Information

Communities and Local Government
www.communities.gov.uk/epbd
E-mail: help@epbduk.info
Helpline: 0845 365 2468

For consumer complaints
Consumer Direct
www.consumerdirect.gov.uk
Helpline: 08454 04 05 06

For the National register
Landmark Information Group Limited
www.ndepcregister.com

For the accreditation schemes for Non-dwelling Energy Assessment
Accreditation schemes for Non-residential Energy Assessment are operated only by the following organisations:

- BESCA
- BRE
- Chartered Institution of Building Services Engineers (CIBSE)
- Elmhurst
- EPC Limited
- National Energy Services
- Northgate
- Quidos
- Royal Institution of Chartered Surveyors (RICS)
- Stroma
- HIC Ltd
- NAPIT

For information about energy efficiency, practical advice and grants
The Carbon Trust
www.carbontrust.co.uk

Annex B

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. Obtain 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^{o}C can save eight 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.

Improving the energy rating of a building

There are a number of considerations for improvements to non-dwellings *(all information provided courtesy of the Carbon Trust)*:

Budget and resources for the project

In most cases a business case will be required. This is likely to focus on cost and financial return (eg payback period, based on energy and other cost savings), but may also include other benefits such as meeting regulations, improved environmental performance and corporate reputation, or better staff working conditions.

Consequential Improvements

The Consequential Improvement requirement applies to proposed work in buildings over 1000m^2 which consists of:

- an extension
- the initial provision of any fixed building services such as heating, ventilation or air handling
- an increase to the installed capacity of any such fixed building service.

If the criteria apply then the building will be required to comply with the Building Regulations but only if the work is technically, functionally and economically feasible. For more information if you think you may be affected. See Approved Document L2B at: www.planningportal.gov.uk.

Requirements

Improvements may include the purchase of equipment – do you know the exact make and model you need? If not, you may need to undertake research and talk to suppliers before producing a shortlist of options and then preparing a product/project specification that clearly defines your requirements.

Knowing which suppliers, installers and/or contractor to use

The next step is to identify potential suppliers to approach for quotes. Where possible contact vendors that have been recommended to you. If this is not possible, contact trade associations representing suppliers of the products you require. Alternatively if you know which equipment you need, but are unsure of an installer, contact the equipment manufacturers and ask them to provide you with a recommendation.

Interest free Loans

Energy-Efficiency loans from the Carbon Trust provide the capital to fund energy saving projects and the savings should usually cover the loan repayments. The loans are unsecured and interest free.

Enhanced Capital Allowance (ECA)

The Energy Technology List helps you to select equipment that is energy efficient – and equipment from the list qualifies for Enhanced Capital Allowances, giving you 100 per cent tax relief in the year of purchase.

Energy Efficiency Accreditation Scheme (EEAS)

Sign up for the UK's only independent award recognising achievements in reducing energy use by leading organisations in industry, commerce and the public sector.

Customer Centre at the Carbon Trust

The Carbon Trust provides *independent* advice on energy improvements for buildings and can advise on whether you may be eligible for a grant. You can also contact the Customer Centre on **0800 085 2005** for free advice on implementing your energy saving projects. Experts can discuss your proposed projects – and recommend further products and services to improve your energy efficiency.

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