

# Energy Performance of Buildings Directive (EPBD)

## The facts you need to know



## What is the Energy Performance of Buildings Directive?

The EU Energy Performance of Buildings Directive (EPBD) was introduced in the UK from January 2006 with a three year implementation period ending January 2009. Its objective is to improve energy efficiency and reduce carbon emissions as part of the government's strategy to achieve a sustainable environment and meet climate change targets agreed under the Kyoto Protocol.

The EPBD introduced higher standards of energy conservation for new and refurbished buildings from April 2006 and will require energy performance certification for all buildings when sold or leased. In addition it will introduce regular inspections for larger air conditioning systems and advice on more efficient boiler operation for commercial property.

## What are the requirements of the EPBD?

### Residential property

From 14 December all homes marketed for sale will require an Energy Performance Certificate (EPC) that will contain information on the property's energy efficiency and estimated running costs. The certificate will give a property an energy efficiency rating similar to a white goods energy rating. It will also include advice on further cost effective improvements that can be made. The EPBD requires all properties to have a certificate when they are constructed, sold or let by January 2009.

### Commercial property

There are two types of energy certificate required for new and existing commercial buildings; Energy Performance Certificates (also known as asset ratings) required on construction, sale or lease of all buildings by October 2008 and Display Energy Certificates (DEC) or operational ratings required for public buildings over 1000m<sup>2</sup> from October 2008.

## 1. Energy Performance Certificates

From April 2008 all newly constructed non-dwellings will require an Energy Performance Certificate and existing buildings with a floor area over 10 000m<sup>2</sup> will require an EPC when sold or rented. The certificate will include an energy rating, as well as advice on how to make cost effective improvements to the building to make it more energy efficient. The ratings will be similar to those currently used for white goods, ranging from A to G,

with A the best and G the worst. From 1 July 2008 the requirement for an EPC will be extended to all non-dwellings over 2500m<sup>2</sup> sold or rented. From October 2008 all remaining non-dwellings will require an EPC.

From January 2009 air conditioning systems (larger than 12kW) will be subject to inspection every five years.

## **2. Display Energy Certificates**

Public buildings over 1000m<sup>2</sup> occupied or part occupied by public authorities or by institutions providing public services and therefore frequently visited by the public, will require Display Energy Certificates (DECs). This form of certificate must be publicly displayed within the building and is different in form and content from an Energy Performance Certificate. Display certificates are produced using a different methodology and are based on actual energy usage over a three year period (if available). The building is given an operational rating which assesses how well it has been operated based on actual energy consumption information. Display Energy Certificates will come into effect from 1 October 2008 and must be renewed every year with an accompanying advisory report required every 7 years.

This is in addition to the requirement for an EPC when a public building is constructed, sold or rented out.

### **What type of buildings need an EPC or Display certificate?**

Energy Performance Certificates will be required upon construction sale or lease for all non-dwellings from small high street retailers and offices to larger scale commercial premises such as airports, shopping centres, office blocks and warehouses.

Display Energy Certificates will be required for all public authority buildings and institutions providing a public service with a floor area over 1000m<sup>2</sup> which would currently include council offices, schools, colleges, universities and hospitals and any other publicly owned or publicly financed buildings accessed by the public. The government is committed to extending this requirement to all large publicly owned buildings at some time yet to be announced.

Exemptions to the requirement for an EPC are:

- Places of worship
- Temporary buildings in use for less than two years, e.g. site offices

- Low energy demand buildings such as agricultural buildings, e.g. barns
- Stand alone buildings less than 50m<sup>2</sup>, e.g. sheds and summer houses

### **When are EPCs/Display certificates required?**

Display Energy Certificates are required annually for all public buildings over 1000m<sup>2</sup> from October 2008.

Energy Performance Certificates will be introduced for non-dwellings larger than 10 000m<sup>2</sup> upon construction, sale or lease from April 2008.

### **Newly constructed buildings**

All newly constructed buildings will require an EPC. Off-plan buildings do not require an EPC until the construction is complete, however the government is encouraging the production of a predictive EPC (known as a Predictive Energy Assessment or PEA) based on the building regulation compliance check at the design stage.

### **Commercial Sales and Lettings**

An Energy Performance Certificate is valid for 10 years and must be made available to a prospective buyer or tenant at the earliest opportunity before entering a contract for sale or lease but no later than the release of marketing material or the request for a visit to the property. For commercial lettings an EPC is only required for a newly leased property. There is no need to obtain an Energy Performance Certificate for an existing tenancy. If a valid Energy Performance Certificate still exists when changing tenants no new certificate is required. This applies to both private and social sector landlords and tenants.

### **Who is responsible for commissioning an EPC?**

Landlords and property managers are responsible for ensuring that an Energy Performance Certificate is made available. The occupying public authority is responsible for commissioning a Display Energy Certificate.

### **How long is an EPC/Display Certificate valid for?**

Energy Performance Certificates are valid for 10 Years except for marketed sales of dwellings where a Home Information Pack is required and the EPC must be no older than twelve months at the time of pack assembly.

Display Energy Certificates are valid for 10 years. The accompanying advisory report on cost effective improvements is valid for 7 years.

## Are there any enforcements?

Building Control will enforce certification of newly constructed buildings

Trading Standards will enforce certification of existing buildings. Penalty fines will apply if a valid certificate is not produced up to 6 months after the certificate was required or a valid Display Energy Certificate is not displayed.

## When is the EPBD being implemented?

6 April 2008	EPCs required for the sale or rent of buildings other than dwellings with a floor area over 10 000m <sup>2</sup>  EPCs required on construction for all dwellings
1 July 2008	EPCs required on construction, sale or rent of all non-dwellings over 2500m <sup>2</sup>
1 October 2008	EPCs required on the sale or rent of all remaining dwellings  EPCs required on the sale or rent of all remaining buildings other than dwellings.  Display certificates required for all public buildings >1000m <sup>2</sup>
4 January 2009	First inspection of all existing air-conditioning systems over 250 kW must have occurred by this date.
4 January 2011	First inspection of all remaining air-conditioning systems over 12 kW must have occurred by this date.

## Does the EPBD apply in Scotland and Northern Ireland?

The EPBD will be implemented in Scotland and Northern Ireland but the timetable will be different to that for England and Wales.

In Scotland, the Scottish Building Standards Agency (SBSA) is charged with the implementation of the Directive. Buildings when constructed, sold or rented out, including homes, public sector buildings and business premises will require an Energy Performance Certificate (EPC). The requirement for EPCs is being phased in as follows:

- Construction from May 2007
- Point of sale during 2008
- Rental by January 2009

Two EPC models have been approved for use in Scotland; one for dwellings, the second for all other building types. The certificates will provide an energy efficiency rating, which measures overall efficiency, and is similar to the scale currently used for domestic white goods. The certificate also includes an environmental impact rating, which indicates carbon dioxide emissions. Recommendations for cost-effective improvements will also be included. Copies of the models can be downloaded from the Scottish Building Standards Agency (SBSA) website. EPCs will remain valid for a period of ten years.

It is expected that in Northern Ireland accreditation schemes will operate on the England and Wales model.

### **Who can produce Energy Performance Certificates in Scotland?**

In Scotland, the SBSA has chosen to enter into protocols with relevant professional organisations for the provision of EPCs. RICS Scotland is currently in negotiations with the SBSA to finalise arrangements. Further information, including methodologies and training requirements, will soon be made available to members.

### **How are Energy Performance Certificates produced?**

Buildings will be rated on predicted energy use, calculated mostly using the Simplified Building Energy Method (SBEM) methodology, which is also used to demonstrate compliance with Part L of the Building Regulations or Scottish or Northern Ireland equivalents.

The SBEM methodology is a new development specifically created for the EPBD by the Building Research Establishment on behalf of the government. Unlike the SAP used for dwellings there is no reduced data version for use on existing property which means a full calculation must be carried out each time.

The basic principles of the methodology are:

- The building must be zoned by use, therefore a set of up-to-date plans will be required in order to calculate the zone sizes
- Each zone is treated as a box and a U value of each face of the zone must then be determined either from

look up tables or by calculation from first principles

- Similarly all the services must be determined, such as boiler type and output and the runs of the services around the building
- All these elements are then entered into the software which compares the building to a benchmark property based on Building Regulations 2002. For new buildings the software will determine whether the property meets the energy requirements of the building regulations. For existing property it will give a energy performance rating plus a comparative benchmark building
- The software will also generate generic cost effective improvement recommendations to accompany the EPC which must be tailored to suit the property.

### **Who can produce Energy Performance Certificates?**

Only accredited energy assessors will be able to carry out assessments to produce Energy Performance Certificates. It is expected that there will be three levels of assessor; Level 3, qualified to survey simple properties with common characteristics, Level 4, qualified to survey all buildings, both new and existing using the SBEM methodology and Level 5, highly specialist consultants qualified to survey complex buildings using dynamic simulation models. All energy assessors must be registered with an approved government accreditation scheme. RICS has lodged a proposal with DCLG to run an accreditation scheme to regulate members who wish to carry out commercial energy assessments.

### **Who can produce Display Energy Certificates?**

Only accredited Display Energy Certificate assessors will be able to produce a DEC, and the 7 yearly advisory report. The government is currently proposing that there will only be one level of assessor. All DEC assessors must be registered with an approved government accreditation scheme.

### **How do I qualify as an energy assessor?**

RICS is offering members a route to qualification with one-stop-shop service to include training, assessment and accreditation.

**To register your interest in qualifying as an energy assessor with RICS email [energy@rics.org](mailto:energy@rics.org)**

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To ensure that our members are able to provide the **quality of advice** and **level of integrity** required by the market, RICS qualifications are only awarded to individuals who meet the most rigorous requirements for both education and experience and who are prepared to maintain **high standards** in the public interest. With this in mind it's perhaps not surprising that the letters RICS represent the mark of property professionalism worldwide.

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