

# Waterford Energy Bureau - Energy Efficiency/Renewable Energy

## Fact Sheet No.8



### Energy Performance of Building Directive

#### Introduction:

Energy use in buildings accounts for almost half of all Ireland's energy related CO<sub>2</sub> emissions. While some work has been undertaken in recent years regarding standards of insulation and better heating systems, there is still much room for improvement. The introduction of the Energy Performance of Buildings Directive aims to promote improvements in the energy performance of buildings all across Europe, including housing, commercial and public sector buildings.

The EPBD was adopted into Irish law as regulation in 2006, and informs consumers about the energy efficiency of a building and allow them take this into account when buying or renting a property. As of 2013, the EPBD was superseded by the Recast EPBD, and S.I. No 666 of 2006 was superseded by S.I. 243 of 2012. Implemented by Sustainable Energy Ireland, the Department of Environment, Heritage and Local Government (DOEHLG) and the Department of Communication, Energy and Natural Resources (DCENR) set out proposed tasks, responsibilities and timescales to implement Energy Directive in Ireland.

**The Building Energy Rating (BER) is an indication of the energy performance of a dwelling. It covers energy use for space heating, water heating, ventilation and lighting, calculated on the basis of standard occupancy. It is expressed as primary energy use per unit floor area per year (KWh/m<sup>2</sup>/yr). "A" rated properties are the most energy efficient and will tend to have the lowest energy bills.**

#### Actions:

Since January 2009, the EPBD requires that a Building Energy Rating (BER) be provided to prospective buyers or tenants. A BER is a standard calculation of the energy performance of a building, which is produced by a qualified assessor using an agreed calculation method. The BER allows potential tenants or purchasers to take the energy efficiency of the building into account prior to purchase or let and provide them with an indication of the potential heating and lighting costs. The range of evaluation is A1 to G.

A 1	Building consumes less than 25 kW.h/m <sup>2</sup> /year
G	Building consumes more than 450 kW.h/m <sup>2</sup> /year

#### Building Energy Rating (BER)

DEAP Version X.Y

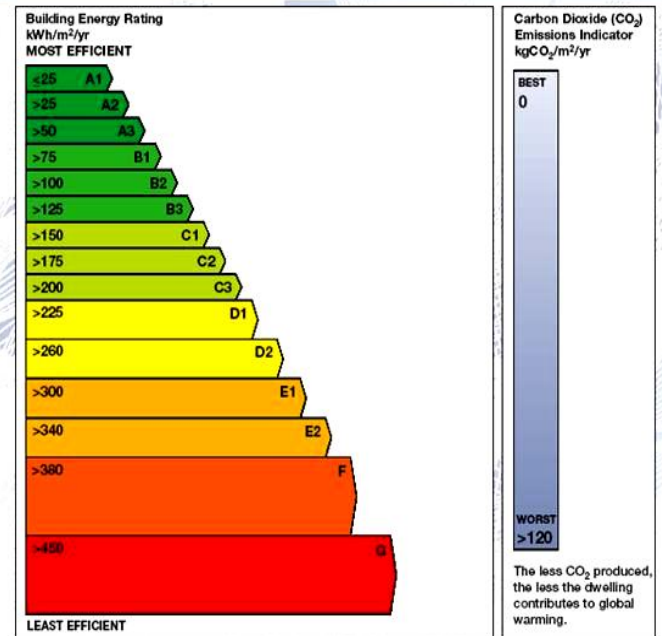
BER for the building detailed below is:

Name of House,  
Street Name One, Street Name Two,  
Town name One, Town Name Two,  
County name One, County name Two,

BER Number: XXXXXXXXXX  
Date of Issue: Day Month Year  
Valid Until: Day Month Year  
BER Assessor No.: XXXX  
Assessor Company No.: XXXX

The Building Energy Rating (BER) is an indication of the energy performance of this dwelling. It covers energy use for space heating, water heating, ventilation and lighting, calculated on the basis of standard occupancy. It is expressed as primary energy use per unit floor area per year (kWh/m<sup>2</sup>/yr).

'A' rated properties are the most energy efficient and will tend to have the lowest energy bills.



**IMPORTANT:** This BER is calculated on the basis of data provided to and by the BER Assessor, and using the version of the assessment software quoted above. A future BER assigned to this dwelling may be different, as a result of changes to the dwelling or to the assessment software.

The less CO<sub>2</sub> produced, the less the dwelling contributes to global warming.

#### Main EPBD objectives are to promote:

1. Improved energy performance of buildings (new constructions and existing buildings)
2. Minimize energy demand of dwellings (insulation, double glazed windows etc)
3. Use of efficient heating systems
4. The convergence of building energy standards towards those of member states, which already have ambitious levels.
5. Improve energy performance of the fabric materials and equipments
6. Reduce cost of production of these elements to stimulate general public investments

### **The principal impacts anticipated from implementation of the EPBD in general are:**

- Creation of widespread market visibility and awareness of the energy performance of buildings
- Expected stimulation of demand, by consumers, developers (private, public or social) and specifiers
- The introduction of energy performance as an additional dimension of complexity within the building design, specification, procurement and Marketing processes
- Possible increased impulse to innovation by building designers, developers, and other product and service providers
- Associated up-skilling of service providers within the industry
- Consequential demand for enhanced foundational and supplementary education and training providers
- Potential impact on property pricing, depending on other market conditions

### **Energy Performance of Building Directive**

- Steps for implementation of “Building Energy Rating” per building classes:

- Building Energy Rating (BER) Label & Advisory Report for new dwellings.
- Alternative energy systems assessment for large new buildings (>1000m<sup>2</sup>).
- BER Label and Advisory Report for new non-residential buildings.
- Building Energy Rating (BER) Label & Advisory Report for existing buildings when rented or sold.

The Provisional BER Certificate is supplied to the Planning Authority with a planning application.  
The Completed BER Certificate is supplied upon request to the Building Control section of the Local Authority after construction

### **Dates of implementation of the EPBD requirements in Ireland;**

- 1st January 2007: BER certificate required for all new homes for which planning permission was applied for on or after January 1st 2007. BER must be completed before they are occupied.
- 1st July 2008: BER required for new non-domestic buildings offered for sale or rent. Transitional BER exemptions applied to new non-domestic buildings for which planning permission was applied on or before 30th June 2008 provided the new non-domestic buildings involved are substantially completed by 30th June 2010.
- 1st January 2009: BER required for any existing buildings offered for sale or letting.

### **Exemption of Implementation of BER Certification:**

The EPBD applies to nearly all new and existing residential and non-residential buildings. However some categories of buildings are exempt from the minimum energy performance and BER requirements. These exemptions are set out in the EPBD and include some of the following:

- Listed national monuments
- Listed buildings of outstanding architectural or historic importance
- Buildings used as places of worship or for the religious activities of any religions
- Industrial buildings not intended for human occupancy over extended periods and where the installed heating capacity does not exceed 10 W/m<sup>2</sup>
- Non-residential agricultural buildings with low energy demand

### **Dwelling Energy Assessment Procedure (DEAP)**

Dwelling Energy Assessment Procedure (DEAP) is the Irish official procedure for calculating and assessing the energy performance of dwellings. DEAP is a method by which sustainable design in buildings can be measured. The procedure takes account of the energy required for space heating, ventilation, water heating and lighting, less savings from energy generation technologies and provides a method by which the Building Energy Rating can be assessed. For standardised occupancy, it calculates annual values of delivered energy consumption, primary energy consumption, carbon dioxide emissions and costs, both totals and per square metre of total floor area of the dwelling.

Waterford Energy Bureau is a sub-section of the Waterford City and County Council Environment Department



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