

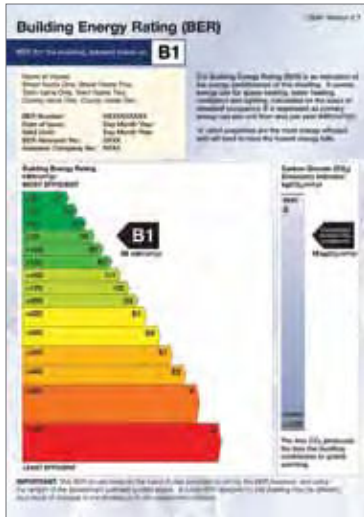
# A Guide to Building Energy Rating for Homeowners





## What is a BER?

A Building Energy Rating or BER is an energy label with accompanying advisory report for homes. The rating is a simple A to G scale. A-rated homes are the most energy efficient and will tend to have the lowest energy bills.



BER Cert



Advisory Report

A BER makes the energy performance of a home visible to prospective buyers and tenants allowing them to take energy performance into consideration in their purchase or rental decision. The Advisory Report identifies potential energy performance improvements that could lead to better comfort levels, reduced energy use and costs.

A BER is valid for up to 10 years provided that there is no material change to the home that could affect the energy performance. A Provisional BER, derived from the plans for an as yet unbuilt home, has a maximum validity of 2 years.



## Who needs a BER?

An owner must provide a BER to prospective buyers or tenants when a home is offered for sale or rent. There are exemptions for certain building categories e.g. protected structures and temporary buildings. A homeowner must obtain a BER before a new home is occupied for the first time regardless of whether it is offered for sale or rent.

BER details must be included on advertisements when a home is offered for sale or rent.



## How is a BER calculated?

A BER is based on the calculated energy performance and associated carbon dioxide emissions for the provision of space heating, ventilation, water heating and lighting under standardised operating conditions. The characteristics of the major components of the home including dimensions, orientation, insulation, and space and hot water system efficiencies are used in the calculation. The BER is not dependent on current occupant behaviour.

The energy performance is expressed as:

- (a) Primary energy use per unit floor area per year ( $\text{kWh/m}^2/\text{yr}$ ) represented on an A to G scale; and
- (b) Associated Carbon Dioxide ( $\text{CO}_2$ ) emissions in  $\text{kgCO}_2/\text{m}^2/\text{yr}$

A BER is only an indication of the energy performance of a home, similar to the concept of a fuel economy (miles per gallon or litres per 100km) rating for a car.

A BER does not include electricity used for purposes other than heating, lighting, pumps and fans. Therefore the energy used for electrical appliances such as cookers, fridges, washing machines and TVs is excluded.



## Who carries out BERs?

BERs are published by independent assessors registered with SEAI. To become registered BER assessors must complete an accredited training course, pass a national examination and act in accordance with a Code of Practice published by SEAI. A list of registered BER assessors is available online at [www.seai.ie/ber](http://www.seai.ie/ber).



## How much does a BER cost?

A person offering a home for sale or rent, or their agent, is required to employ a registered BER assessor to carry out an assessment. There is no set fee and the advice is to shop around for the best value. Make sure to confirm all fees in writing prior to commissioning a BER assessment. BER assessors are charged a levy to publish a BER assessment for a home on the National BER Register.



## What is a Provisional BER?

New homes offered for sale off plans also require a BER. A provisional BER is issued based upon the design drawings and building specifications. The provisional BER is valid for a maximum of 2 years. When the home is completed, the provisional BER must be replaced by a final BER based on a survey of the completed home supported by the final drawings and building specifications which represent the home as constructed.



## Who is responsible for the BER scheme?

Under the European Union (Energy Performance of Buildings) Regulations 2012 (S.I. 243 of 2012) the Sustainable Energy Authority of Ireland (SEAI) is designated as the Issuing Authority with responsibility for the registration of BER assessors, maintaining the registers of BER assessments, quality assurance, awareness raising and ongoing management of the BER scheme. Under the same legislation, enforcement of compliance with BER obligations is a matter for local Building Control Authorities.

**For more information see the SEAI website  
or call 1890 734 237 [www.seai.ie/ber](http://www.seai.ie/ber)**



## Your BER certificate explained

Version of software  
used to rate this home

DEAP Version X.Y

Actual Building Energy  
Rating for this home

### Building Energy Rating (BER)

BER for the building detailed below is: **B1**

Home Address

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 ( $\text{kWh/m}^2/\text{yr}$ ).

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

Each home has a unique  
BER number

BER Assessor Number –  
This is the registration  
number for the assessor  
who carried out this  
assessment

Assessor Company Number  
– This is the registration  
number for the assessor  
company who carried out  
this assessment

BER Rating A-G  
A1 = Most Efficient  
G = Least Efficient  
Accompanied by the  
calculated energy value in  
 $\text{kWh/m}^2/\text{annum}$

Building Energy Rating  
 $\text{kWh/m}^2/\text{yr}$   
MOST EFFICIENT



Carbon Dioxide ( $\text{CO}_2$ )  
Emissions Indicator  
 $\text{kgCO}_2/\text{m}^2/\text{yr}$

BEST

0

Calculated annual  $\text{CO}_2$  emissions  
**18  $\text{kgCO}_2/\text{m}^2/\text{yr}$**

WORST  
>120

The less  $\text{CO}_2$  produced,  
the less the dwelling  
contributes to global  
warming.

**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 supplied above. A future BER assigned to this dwelling may be different as a result of changes to the dwelling or to the assessment software.

$\text{CO}_2$  emissions for your  
home. Lower is best and  
it's an indication of how  
green your home is



## How might my home rate?

Table 1: Indicative Building Energy Rating grades for typical homes

| Oil/gas central heating |                       | Standard electric heating |                       | Solid fuel central heating |                       |
|-------------------------|-----------------------|---------------------------|-----------------------|----------------------------|-----------------------|
| Year of construction    | Typical energy rating | Year of construction      | Typical energy rating | Year of construction       | Typical energy rating |
| 2012+                   | A3                    | 2012+                     | A3                    | 2012+                      | A3                    |
| 2010-2011               | B1                    | 2010-2011                 | B1                    | 2010-2011                  | B1                    |
| 2008-2009               | B3                    | 2008-2009                 | C3                    | 2008-2009                  | B3                    |
| 2005-2007               | C1                    | 2005-2007                 | D1                    | 2005-2007                  | C2                    |
| 1994-2004               | C3                    | 1994-2004                 | E1                    | 1994-2004                  | D1                    |
| 1978-1993               | D1                    | 1978-1993                 | E2                    | 1978-1993                  | D2                    |
| Pre 1978                | D2/E1/E2              | Pre 1978                  | G                     | Pre 1978                   | F                     |

These tables indicate the typical BER rating for houses by age for various fuel types. The data reflects typical Building Regulations and practices at the time of construction.

Table 2: Indicative annual CO<sub>2</sub> emissions and running costs for different rating bands for space and water heating

| Rating | 2 Bed Apartment        |          | 3 Bed Semi-D           |          | 4 Bed Semi-D           |          | Detached House         |          | Large house            |          |
|--------|------------------------|----------|------------------------|----------|------------------------|----------|------------------------|----------|------------------------|----------|
|        | Area (m <sup>2</sup> ) | 75       | Area (m <sup>2</sup> ) | 100      | Area (m <sup>2</sup> ) | 150      | Area (m <sup>2</sup> ) | 200      | Area (m <sup>2</sup> ) | 300      |
|        | Tonnes CO <sub>2</sub> | Cost (€) | Tonnes CO <sub>2</sub> | Cost (€) | Tonnes CO <sub>2</sub> | Cost (€) | Tonnes CO <sub>2</sub> | Cost (€) | Tonnes CO <sub>2</sub> | Cost (€) |
| A1     | 0.4                    | €140     | 0.5                    | €190     | 0.8                    | €280     | 1.1                    | €400     | 1.6                    | €600     |
| A2     | 0.8                    | €280     | 1.1                    | €380     | 1.6                    | €560     | 2.2                    | €800     | 3.2                    | €1,100   |
| A3     | 1                      | €350     | 1.4                    | €470     | 2                      | €700     | 2.7                    | €900     | 4.1                    | €1,400   |
| B1     | 1.3                    | €440     | 1.7                    | €590     | 2.5                    | €900     | 3.4                    | €1,200   | 5                      | €1,800   |
| B2     | 1.6                    | €570     | 2.2                    | €800     | 3.3                    | €1,100   | 4.3                    | €1,500   | 6.5                    | €2,300   |
| B3     | 2                      | €700     | 2.7                    | €900     | 4                      | €1,400   | 5.3                    | €1,900   | 8                      | €2,800   |
| C1     | 2.4                    | €800     | 3.1                    | €1,100   | 4.7                    | €1,600   | 6.3                    | €2,200   | 9.4                    | €3,300   |
| C2     | 2.8                    | €1,000   | 3.7                    | €1,300   | 5.5                    | €1,900   | 7.4                    | €2,600   | 11                     | €3,900   |
| C3     | 3.2                    | €1,100   | 4.2                    | €1,500   | 6.3                    | €2,200   | 8.4                    | €2,900   | 12.7                   | €4,400   |
| D1     | 3.7                    | €1,300   | 5                      | €1,700   | 7.5                    | €2,600   | 10                     | €3,500   | 14.9                   | €5,200   |
| D2     | 4.4                    | €1,500   | 5.8                    | €2,000   | 8.8                    | €3,100   | 11.7                   | €4,100   | 17.5                   | €6,100   |
| E1     | 5                      | €1,800   | 6.7                    | €2,300   | 10.1                   | €3,500   | 13.4                   | €4,700   | 20.1                   | €7,000   |
| E2     | 5.7                    | €2,000   | 7.6                    | €2,600   | 11.4                   | €4,000   | 15.1                   | €5,300   | 22.7                   | €7,900   |
| F      | 6.8                    | €2,400   | 9.1                    | €3,200   | 13.6                   | €4,700   | 18.2                   | €6,300   | 27.2                   | €9,500   |
| G      | 8.5                    | €3,000   | 11.3                   | €4,000   | 17                     | €5,900   | 22.7                   | €7,900   | 34                     | €11,900  |

This table gives estimated annual fuel cost and CO<sub>2</sub> emissions on the basis of typical occupancy and heating the entire dwelling to a comfortable level.

The Tables above are based on fuel and electricity factors from February 2014.