



**An  
Phríomh-Oifig  
Staidrimh**

Central  
Statistics  
Office

**Standard SIMS Report:  
Non-Domestic Building Energy  
Ratings**



# **Single Integrated Metadata Structure (SIMS) Report**

**For**

# **Non-Domestic Building Energy Ratings**

This documentation applies to the reporting period:

**2021**

Last edited: 12/01/2022



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## 2. Introduction

This statistical release provides information on the energy efficiency of non-domestic dwellings. Space heating is a very important aspect of the energy consumption of these enterprises especially in the public sector.

The statistics on Non-Domestic Building Energy Ratings are compiled from administrative microdata obtained from the Sustainable Energy Authority of Ireland (SEAI).

The EU Energy Performance of Buildings Directive (EPBD) was transposed into Irish Law from 2006 onwards. The EPBD contains a range of provisions to improve the energy performance of new and existing buildings. The EPBD obliges specific forms of information and advice on energy performance to be provided to building purchasers, tenants and users for consideration in property transactions. From 2013, the EPBD was superseded by a Recast EPBD and S.I. 666 of 2006 was superseded by S.I. 243 of 2012 which made provisions for the inclusion of Building Energy Rating (BER) information in property sale and rental advertisements. A person offering a property for sale or rent on or after 9th January 2013, or their agent, is obliged to ensure that the energy performance indicator of the current BER certificate for the building is stated in any advertisements, where such advertisements are taken relating to the sale or letting of that building.

## 3. Contact

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## 4. Metadata Update

### 4.1. Metadata last certified

12/01/2022

### 4.2. Metadata last posted

12/01/2022

### 4.3. Metadata last update

12/01/2022



## 5. Statistical Presentation

### 5.1. Data Description

The Non-Domestic Energy Assessment Procedure (NEAP) is the methodology for demonstrating compliance with specific aspects of Part L of the Building Regulations. NEAP is also used to generate the BER and advisory report for new and existing non-domestic buildings. NEAP calculates the energy consumption and CO<sub>2</sub> emissions associated with a standardised use of a building.

### 5.2. Classification System

SBEM (Simplified Building Energy Model) is an approach for assessing the energy performance of buildings for the NEAP.

The performance criteria are based on the relative values of the calculated primary energy consumption and CO<sub>2</sub> emission rate of a building being assessed, and similar calculated values for the notional building. The criteria are determined as follows:

- Primary energy consumption and CO<sub>2</sub> emissions for both the actual building and the notional building are calculated using SBEM;
- The calculated primary energy consumption of the actual building is divided by that of the notional building, the result being the BER of the actual building.

Category	kWh/m <sup>2</sup> /year
A1	≤ 25
A2	> 25
A3	> 50
B1	> 75
B2	> 100
B3	> 125
C1	> 150
C2	> 175
C3	> 200
D1	> 225
D2	> 260
E1	> 300
E2	> 340
F	> 380
G	> 450

Table A: BER categories

### 5.3. Sector Coverage

All non-domestic dwellings assessed for a BER.



## 5.4. Statistical Concepts and definitions

The statistics include BERs, average primary energy use, average carbon dioxide emissions and average floor area.

A BER is an indication of the energy performance of a dwelling (represented in units of kWh/m<sup>2</sup>/year). Actual energy performance will depend on how the occupants operate the dwelling. A BER is based on the characteristics of major components of the dwelling including wall, roof and floor dimensions, window and door sizes and orientations, as well as the construction type and insulation, ventilation and air tightness features; the system for heat supply (including renewable energy), distribution, and control, and type of lighting.

Based on BER certificate issued for non-domestic dwellings there are three types of BER Certificates.

- A New Dwelling – Provisional BER is required for a dwelling that is not yet built but is offered for sale off the plans.
- A New Dwelling – Final BER is required for a newly-built dwelling before it is occupied. This certificate is based on data collected in a site survey carried out by a registered BER Assessor as well as drawings and specifications for the completed dwelling.
- An Existing Dwelling BER is required for any existing dwelling that is offered for sale or to let. An existing dwelling is one that has previously been sold or occupied. This is based on data collected in a site survey carried out by a registered BER Assessor.

Both the New Dwelling – Final BER and the Existing Dwelling BER certificates are valid for 10 years from the date of issue. They become invalid if material changes are made to the dwelling during that period. This release is an analysis of Final and Existing BER certificates.

**Year of construction:** Year when the dwelling was originally built.

**Main Space Heating system:** The main space heating system heats the largest proportion of the dwelling. The proportion is calculated using a count of the habitable rooms. It often provides hot water as well as space heating.

**Main Water Heating system:** This category has similar fuel response options to the Main Space Heating system.

**Total Internal Floor Area of the dwelling:** the total area of exposed and semi-exposed floors. It excludes any unheated areas that are thermally separated from the dwelling. The total energy usage is divided by the dwelling floor area to determine the BER.

## 5.5. Statistical Unit

Non-domestic buildings.

## 5.6. Statistical Population

Non-domestic dwellings that have had a BER assessment carried out.

## 5.7. Reference Area

State, County, Dublin postal districts.

## 5.8. Time Coverage

2009 –2021.

## 5.9. Base period

Not applicable.



## 6. Unit of Measure

The energy consumption is expressed as kilowatt hours per square metre floor area per year (kWh/m<sup>2</sup>/year) and the CO<sub>2</sub> emissions expressed in terms of kilograms of CO<sub>2</sub> per square metre floor area per year (kgCO<sub>2</sub>/m<sup>2</sup>/year). The floor area is expressed in terms of m<sup>2</sup>.

## 7. Reference Period

2021

## 8. Institutional Mandate

### 8.1. Legal Acts and other agreements

S.I. 243 of 2012 which makes provisions for the inclusion of BER information in property sale and rental advertisements.

### 8.2. Data Sharing

The CSO obtained access to the non-domestic BER data collected by the SEAI under Section 30 of the Statistics Act, 1993.

## 9. Confidentiality

### 9.1. Confidentiality – policy

All information supplied to the CSO is treated as strictly confidential. The Statistics Act, 1993 sets stringent confidentiality standards: Information collected may be used only for statistical purposes, and no details that might be related to an identifiable person or business undertaking may be divulged to any other government department or body.

These national statistical confidentiality provisions are reinforced by the following EU legislation: Council Regulation (EC) No 223/2009 on European statistics for data collected for EU statistical purposes. Further details are outlined in the CSO's Code of Practice on Statistical Confidentiality.

For more information on the CSO confidentiality policy please visit:

<https://www.cso.ie/en/aboutus/lqdp/csodatapolicies/statisticalconfidentiality/>

### 9.2. Confidentiality – data treatment

All confidential data are treated in accordance with Part V of the Statistics Act, 1993.

## 10. Release Policy

### 10.1. Release Calendar

The date of dissemination of all statistics released by the CSO can be found in the Release Calendar published by the CSO. This calendar is regularly updated.

### 10.2. Release calendar access

The release calendar can be accessed via the CSO website, [www.cso.ie](http://www.cso.ie), or directly from this link:

<https://www.cso.ie/en/csolatestnews/releasecalendar/>



### 10.3. User access

In accordance with Principle 6 of the European Statistics Code of Practice all users of CSO statistics have equal access via the CSO website at the same time of 11 am. Any privileged pre-release access to any outside user is limited, controlled and publicised. In the event that leaks occur, pre-release arrangements are revised so as to ensure impartiality.

The CSO recognises that in very limited circumstances a business need for pre-release access may be substantiated. Any form of pre-release access is a privilege and a strict CSO pre-release access policy is adhered to for these special requests. The full pre-release access policy can be accessed at <https://www.cso.ie/en/aboutus/lgdp/csodatapolicies/csopolicyonpre-releaseaccess/>

The various results are published nationally in statistical release format on the CSO website (www.cso.ie). Selected extracts from the results are posted on the CSO's data dissemination database, PxStat.

## 11. Frequency of Dissemination

Quarterly.

## 12. Accessibility and clarity

### 12.1. News release

Not applicable.

### 12.2. Publications

The data is made available on the CSO website at 11am on the day of publication. The most recent releases can be found via this link:

<https://www.cso.ie/en/statistics/climateandenergy/non-domesticbuildingenergyratings/>

### 12.3. On-line database

The Non-Domestic Building Energy Rating data is not available on the CSO's dissemination database PxStat.

#### 12.3.1. AC 1. Data tables - consultations

Not calculated.

### 12.4. Micro-data Access

Not applicable.

### 12.5. Other

The SEAI have extensive documentation. The CSO can compile special analyses if requested.

#### 12.5.1. AC2. Metadata consultations

Not calculated.



## 12.6. Documentation on Methodology

Further information on the methodology applied to this release can be found in the CSO Methods page: <https://www.cso.ie/en/methods/climateandenergy/non-domesticbuildingenergyratings/>

### 12.6.1. AC3 – Metadata completeness – rate

Not calculated.

## 12.7. Quality Documentation

Information on the quality associated with this release can be found in the CSO Methods page: <https://www.cso.ie/en/methods/climateandenergy/non-domesticbuildingenergyratings/>

# 13. Quality Management

## 13.1. Quality Assurance

### Quality Management Framework

The CSO avails of an office wide Quality Management Framework (QMF). This framework allows all CSO processes and outputs to meet the required standard as set out in the European Statistics Code of Practice (ESCOP). The QMF foundations are based on establishing the UNECE's Generic Statistical Business Process Model (GSBPM) as the operating statistical production model to achieve a standardised approach to Quality Management. All and any changes implemented to CSO processes and outputs require adherence to the QMF.

## 13.2. Quality Assessment

The 2020 Quality Management Self-Assessment (QMSA) identified the mandatory collection of Eircodes as an area for improvement. The Eircode is now a mandatory input within the DEAP software.

# 14. Relevance

## 14.1. User Needs

The data are produced in response to national needs.

### 14.1.1. Main National Users

Government, Policy makers, Energy Sector, Business, National media – journalists, general public etc.

### 14.1.2. Principal External Users

Not applicable.

## 14.2. User Satisfaction

Not measured.

## 14.3. Data Completeness

Not measured.

### 14.3.1. Data Completeness rate

Not measured.



## 15. Accuracy and reliability

### 15.1. Overall accuracy

Data is collected and produced using standardised software to estimate energy performance.

### 15.2. Sampling Error

Not applicable.

#### 15.2.1. A1. Sampling error indicator

Not applicable.

### 15.3. Non-sampling Error

Not applicable.

#### 15.3.1. Coverage error

Not applicable.

##### 15.3.1.1. A2. Over coverage rate

Not applicable.

##### 15.3.1.2. A3. Common units – proportion

Not applicable.

#### 15.3.2. Measurement error

Not applicable.

#### 15.3.3. Non-Response Error

Not applicable.

##### 15.3.3.1. Unit non-response rate

Not applicable.

##### 15.3.3.2. Item non-response rate

Not applicable.

#### 15.3.4. Processing error

Not applicable.

#### 15.3.5. Model assumption error

Not applicable.



## 16. Timeliness and punctuality

### 16.1. Timeliness

The results have a target timeliness of 30 days after the end of each quarter.

#### 16.1.1. TP1. Time lag – First results

Not applicable.

#### 16.1.2. TP2. Time lag – Final results

Data is received on a quarterly basis and is usually published within  $t + 14$  days.

### 16.2. Punctuality

This release was published on time for all 4 quarters in 2021 in accordance with the time frame specified in the CSO release calendar.

#### 16.2.1. TP3. Punctuality – Punctuality - delivery and publication

Q1 2021	Q2 2021	Q3 2021	Q4 2021
0 days	0 days	0 days	0 days

## 17. Comparability

### 17.1. Comparability – Geographical

The ratings can be compared with those of domestic dwellings which are published on a quarterly basis by the CSO.

#### 17.1.1. CC1. Asymmetry for mirror flow statistics

Not applicable.

### 17.2. Comparability over time

No break in the series has occurred to date however possible changes in the legislative basis for the collection of the data or changes to the software collecting the data could introduce a break in the series in the future.

#### 17.2.1. Length of Comparable Time series

12 years.

### 17.3. Coherence – cross domain

There are no similar statistics.

#### 17.3.1. Coherence – Sub annual and annual statistics

Not applicable.

#### 17.3.2. Coherence with National Accounts

Not applicable.



#### **17.4. Coherence – internal**

The ratings can be compared with those of domestic dwellings which are published on a quarterly basis by the CSO.

### **18. Cost and Burden**

The Non-Domestic Building Energy Rating release reuses data collected by the SEAI under S.I. 243 of 2012. There is no additional cost and burden.

### **19. Data Revision**

#### **19.1. Data Revision Policy**

Revisions refer to changes made to published statistical data when the information used in its production has been updated or corrected. This information includes all data used in compiling the statistic e.g. respondent data, administrative data, weights and factors, methodology, classifications, definitions, modifications to survey questionnaires, survey scope and data collection methods.

The data revision policy that CSO statistics adheres to can be found via the following link:  
<https://www.cso.ie/en/methods/quality/treatmentofrevisions/>

#### **19.2. Data Revision Practice**

Revisions are made quarterly as updated assessments are performed on a previously assessed building.

##### **19.2.1. Data Revision – Average size**

Not calculated.



## 20. Statistical processing

### 20.1. Source Data

SEAI NDBER administrative data.

#### 20.1.1. Population and sampling frame

Non-domestic dwellings that have had a BER assessment carried out.

#### 20.1.2. Sampling design

Not applicable.

#### 20.1.3. Survey size

Not applicable.

#### 20.1.4. Survey technique

Collected using SEAI DEAP software.

### 20.2. Frequency of data collection

Quarterly.

### 20.3. Data Collection

The collection of the data is the responsibility of the SEAI.

#### 20.3.1. Type of Survey/Process

Administrative data based on the assessment of the energy performance of a non-domestic dwelling.

#### 20.3.2. Questionnaire (including explanations)

<https://www.seai.ie/grants/supports-for-contractors/neap/sbemie-software/>

#### 20.3.3. Survey Participation

Mandatory for new non-domestic dwellings from July 2008 and for existing non-domestic dwellings when offered for sale or rent from January 2009.

#### 20.3.4. Data Capture

Data on the dwelling is collected using SEAI DEAP software.

<https://www.seai.ie/home-energy/building-energy-rating-ber/support-for-ber-assessors/domestic-ber-resources/deap4-software/>

### 20.4. Data Validation

Not applicable.

### 20.5. Data Compilation

No imputation or weighting is carried out.



### **20.5.1. Imputation (for Non-Response or Incomplete Data Sets)**

Not applicable.

#### **20.5.1.1. A7. Imputation rate**

Not applicable.

### **20.5.2. Grossing and Weighting**

Not applicable.

## **20.6. Adjustment**

Not applicable.

### **20.6.1. Seasonal Adjustment**

Not applicable.

## **21. Comment**

The quality reports are generally updated only once a year after all individual dissemination products have been completed.

This quality report refers to dissemination carried out throughout 2021 and includes information for all 4 quarters in the year.