An Phríomh-Oifig Staidrimh
Central Statistics Office

Standard SIMS Report:

Data Centres Metered Electricity Consumption

Single Integrated Metadata Structure (SIMS) Report

For

Data Centres Metered Electricity Consumption

This documentation applies to the reporting period:
2024

Last edited: 09/06/2025

1. Table of Contents

2. Introduction

The Data Centres Metered Electricity Consumption release contains consumption data on connections to the mains electricity network from Data Centres in Ireland. The release is based on data from ESB Networks and contributes to national and international needs on energy statistics.

3. Contact

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4. Metadata Update

4.1. Metadata last certified

05/06/2025

4.2. Metadata last posted

10/06/2025

4.3. Metadata last update

05/06/2025

5. Statistical Presentation

5.1. Data Description

The release is based on data received from ESB Networks and contributes to national and international needs on energy statistics. The data shows the metered consumption of data centres connected to the electricity mains in Ireland.

5.2. Classification System

The data received by the CSO were classified by tariff category (DUoS (Distribution Use of System)). The DUoS is determined by factors such as the type of use, maximum import capacity (MIC), and the nature of the connecting network. Data centres were found in different DUoS groups hence the need for the CSO to examine all meters to identify them.

5.3. Sector Coverage

The data covers all data centres connected to the electricity mains network.

5.4. Statistical Concepts and definitions

Consumption in gigawatt hours (GWh) by data centres at a quarterly and annual level.

5.5. Statistical Unit

The Electricity Supply Board (ESB) collect meter readings data from data centres, which are then converted into quarterly consumption estimates. Meter readings can be actual or estimated, and actual readings can be from a meter reader or from the data centre consumer.

5.6. Statistical Population

All data centre consumers connected to the electricity mains network.

5.7. Reference Area

The results are reported on a national level.

5.8. Time Coverage

Quarterly – 2015 to 2024

5.9. Base period

Not applicable.

6. Unit of Measure

The data is expressed in gigawatt hours (GWh). A kilowatt hour is a unit of energy equivalent to one kilowatt of power sustained over an hour. A gigawatt hour is equivalent to one million kWh. The data were originally collected as meter readings.

7. Reference Period

2015 – 2024

8. Institutional Mandate

8.1. Legal Acts and other agreements

Not applicable.

8.2. Data Sharing

The CSO received the administrative microdata from ESB 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/lgdp/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 CSO can be found in the Release Calendar published in CSO.ie. This calendar is regularly updated.

10.2. Release calendar access

The release calendar can be accessed via the CSO website, 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 as well as 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

Data centre metered electricity consumption data will be published annually by the CSO.

12. Accessibility and clarity

12.1.News release

Not applicable.

12.2. Publications

The electronic release can be found via the following link:
https://www.cso.ie/en/statistics/energy/datacentresmeteredelectricityconsumption/

12.3. On-line database

The information is published in tabular format via the CSO's dissemination database PxStat. The tables can be accessed directly from this link: https://data.cso.ie/table/MEC02

12.3.1. AC 1. Data tables -consultations

Not calculated.

12.4. Micro-data Access

Not applicable.

12.5. Other

Not applicable.

12.5.1. AC2. Metadata consultations

Not available.

12.6. Documentation on Methodology

Further documentation on the methodology used to compile this output can be accessed from the Methods page on cso.ie or directly from this link:
https://www.cso.ie/en/methods/energy/datacentresmeteredelectricityconsumption/

12.6.1. AC3 – Metadata completeness – rate

Not calculated.

12.7. Quality Documentation

Further documentation on the quality aspects of this output can be accessed from the Methods page on cso.ie or directly from this link:

https://www.cso.ie/en/methods/energy/datacentresmeteredelectricityconsumption/

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.

14. Relevance

14.1.User Needs

Data on energy use are important for environmental, social and economic purposes. The data provide insights into trends in consumption by data centres.

14.1.1. Main National Users

Sustainable Energy Authority of Ireland.

14.1.2. Principal External Users

National and international users of statistics on energy use include the SEAI, the government, the media, and the public.

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

Administrative data were provided by ESB Networks. The data are considered to be reliable. The meter readings data were converted to quarterly consumption estimates by ESB Network. Meter readings can be actual or estimated. The microdata file provided to the CSO did not provide information on whether the consumption in a period was based on an estimated reading.

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

The data provided to the CSO covered all meters connected to the mains electricity network. Data centres were not readily identifiable in the meter data so the CSO examined around 2.5 million meters to identify Meter Point Reference Numbers (MPRNs) that we considered were primarily being used for data centre activity. In practice, a small number of data centres accounted for most of the metered electricity consumption.

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 six months after the end of a year.

16.1.1. TP1. Time lag – First results

Not applicable.

16.1.2. TP2. Time lag – Final results

6 months.

16.2. Punctuality

The results are published on time in line with the indications given in the CSO's release calendar.

16.2.1. TP3. Punctuality – Punctuality - delivery and publication

0 days.

17. Comparability

17.1.Comparability – Geographical

Not applicable.

17.1.1. CC1. Asymmetry for mirror flow statistics

Not applicable.

17.2. Comparability over time

There have been no breaks in the time series.

17.2.1. Length of Comparable Time series

2015 – 2024

17.3. Coherence – cross domain

Not applicable.

17.3.1. Coherence – Sub annual and annual statistics

Not applicable.

17.3.2. Coherence with National Accounts

Not applicable.

17.4. Coherence – internal

Not applicable.

18. Cost and Burden

Estimates of Cost and Burden can be obtained from the Response Burden Barometer

https://www.cso.ie/en/statistics/enterprisestatistics/responseburdenbarometer/

Survey specific information is available via CSO's dissemination database PxStat.
https://data.cso.ie/product/RBB

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

Data for all years are subject to revision. Revisions may arise from including more MPRNs related to existing data centres or excluding MPRNs that were incorrectly included.

19.2.1. Data Revision – Average size

Not calculated.

20. Statistical processing

20.1. Source Data

The Electricity Supply Board (ESB) provided quarterly metered electricity consumption data to the CSO for 2015 to 2024. These quarterly consumption figures were based on meter readings data. Meter readings can be actual or estimated, and actual readings can be from a meter reader or from the customer.

20.1.1. Population and sampling frame

Not applicable.

20.1.2. Sampling design

Not applicable.

20.1.3. Survey size

Not applicable.

20.1.4. Survey technique

Not applicable.

20.2. Frequency of data collection

Annual.

20.3. Data Collection

The CSO received the administrative microdata from the ESB under Section 30 of the Statistics Act, 1993.

20.3.1. Type of Survey/Process

Administrative data.

20.3.2. Questionnaire (including explanations)

Not applicable.

20.3.3. Survey Participation

Not applicable.

20.3.4. Data Capture

Quarterly metered electricity consumption data for all connections to the mains electricity network were received from Electricity Supply Board (ESB Networks) for 2015 to 2024.

20.4. Data Validation

The data have been compared with the Commission for Regulation of Utilities reports and with the Sustainable Energy Authority of Ireland energy balances.

20.5. Data Compilation

The CSO used three main approaches to identify a data centre. The first was a search for names and aliases of known data centres with a consumption above a half gigawatt hour. The second approach was to examine customers located in specific business parks with a consumption above a half gigawatt hour. The third approach was an examination of all meters with an annual consumption above one gigawatt hour. In addition, reports produced by other organisations, the CSO Business Register, and internet searches were used to supplement our work.

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