



An
Phríomh-Oifig
Staidrimh

Central
Statistics
Office

Standard Report on Methods and Quality for Networked Gas Consumption

Standard Report
on
Methods and Quality
for
Networked Gas Consumption

This documentation applies to the reporting period:

2020

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Table of Contents

1 Overview

2 General Information

- 2.1 Statistical Category
- 2.2 Area of Activity
- 2.3 Organisational Unit Responsible, Persons to Contact
- 2.4 Objectives and Purpose; History
- 2.5 Periodicity
- 2.6 Client
- 2.7 Users
- 2.8 Legal Basis

3 Statistical Concepts, Methods

- 3.1 Subject of the Statistics
- 3.2 Units of Observation/Collection Units/Units of Presentation
- 3.3 Data Sources
- 3.4 Reporting Unit/Respondents
- 3.5 Type of Survey/Process
- 3.6 Characteristics of the Sample/Process
- 3.7 Survey Technique/Data Transfer
- 3.8 Questionnaire (including explanations)
- 3.9 Participation in the Survey
- 3.10 Characteristics of the Survey/Process and its Results
- 3.11 Classifications used
- 3.12 Regional Breakdown of Results

4 Production of the Statistics, Data Processing, Quality Assurance

- 4.1 Data Capture
- 4.2 Coding
- 4.3 Data Editing
- 4.4 Imputation (for Non-Response or Incomplete Data Sets)
- 4.5 Grossing and Weighting
- 4.6 Computation of Outputs, Estimation Methods Used
- 4.7 Other Quality Assurance Techniques Used

5 Quality

- 5.1 Relevance
- 5.2 Accuracy and Reliability
- 5.3 Timeliness and Punctuality
- 5.4 Coherence
- 5.5 Comparability
- 5.6 Accessibility and Clarity
 - 5.6.1 Assistance to Users, Special Analyses
 - 5.6.2 Revisions
 - 5.6.3 Publications
 - 5.6.4 Confidentiality

1 Overview

The CSO has produced a statistical release on metered consumption of users connected to the natural gas mains in Ireland.

2 General Information

2.1 Statistical Category

Natural gas consumption data were provided by Gas Networks Ireland and categorised according to type of customer and geographical location by the CSO.

2.2 Area of Activity

Environment - Climate and Energy.

2.3 Organisational Unit Responsible, Persons to Contact

The Environment and Climate Division of the CSO is responsible for compiling and publishing data on networked gas consumption.

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2.4 Objectives and Purpose; History

Data on energy use are important for environmental, social and economic purposes. The data are classified according to category of consumer and geographical location. The data provide insights into trends in consumption by power plants, the non-residential sector, and the residential sector. The data can be used indirectly to make estimates of the amount of natural gas used by dwellings for heating. Similarly, lower-than-average seasonality may indicate that other fuel sources are being used for heating purposes, or that affordability is having an effect on consumption.

2.5 Periodicity

Networked gas consumption data will be published annually by the CSO. The microdata was converted from meter readings to monthly (largest consumers) and quarterly estimates by Gas Networks Ireland.

2.6 Client

Not applicable.

2.7 Users

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

2.8 Legal basis

National reporting of networked gas consumption data is done on a voluntary basis. The methodology for the energy consumption of households, which is reported to Eurostat under a legal obligation, is due to be reviewed. The networked gas consumption data will be an input into the energy consumption of households.

3 Statistical Concepts, Methods

3.1 Subject of the Statistics

The data cover all customers connected to the natural gas network. This includes power plants, non-residential, and residential customers. Three counties (Donegal, Leitrim, and Sligo) had no meter connections. The 2016 Census of Population showed that there were around two million households in Ireland of which 1.7 million were occupied. This release showed that there were 687,749 residential gas meters in 2020.

3.2 Units of Observation/Collection Units/Units of Presentation

The data are gross calorific values expressed in kilowatt hours (kWh) or 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. Kilowatt hours is used for presenting median figures and gigawatt hours for presenting aggregates. The data were originally collected as meter readings.

3.3 Data Sources

The CSO received the administrative microdata from Gas Networks Ireland under Section 30 of the Statistics Act, 1993. The CSO received data for 2011-2020 for all customers and for 2006 for residential and smaller non-residential customers.

3.4 Reporting Unit/Respondents

Not applicable.

3.5 Type of Survey/Process

Not applicable.

3.6 Characteristics of the Sample/Process

Not applicable.

3.7 Survey Technique/Data Transfer

Not applicable.

3.8 Questionnaire (including explanations)

Not applicable.

3.9 Participation in the Survey

Not applicable.

3.10 Characteristics of the Survey/Process and its Results

The results are published on the CSO website.

3.11 Classifications used

The data have been classified into three sectors: power plants; non-residential; and residential. Gas Networks Ireland classified the data as residential or non-residential. Their classification is partly based on the consumption figure. The CSO made a small number of adjustments to recode some meters in a consistent way for all years. The CSO classified a small number of customers as power plants. These included one enterprise that had very large consumption in a combined heat and power (CHP) plant.

There are around 29,000 non-residential customers. The CSO will try to add NACE Rev. 2 codes to the file, as NACE would provide a more detailed analysis of the non-residential customers.

3.12 Regional Breakdown of Results

Networked gas consumption data can be compiled on a county level, with additional detail available for the Dublin region. The county was extracted by the CSO from the postal address of the customer. Geospatial data are available for the domestic and smaller non-domestic customers and these could be used to aggregate the data into different geographical reporting units e.g. square kilometre grids.

4 Production of the Statistics, Data Processing, Quality Assurance

4.1 Data Capture

The data are based on a mixture of actual and estimated meter readings (see 5.2).

4.2 Coding

Not applicable.

4.3 Data Editing

Not applicable.

4.4 Imputation (for Non-Response or Incomplete Data Sets)

Not applicable.

4.5 Grossing and Weighting

Not applicable.

4.6 Computation of Outputs, Estimation Methods Used

Not applicable.

4.7 Other Quality Assurance Techniques Used

The results have been compared with Gas Networks Ireland reports and with the Sustainable Energy Authority of Ireland energy balances.

5 Quality

5.1 Relevance

Data on energy use are important for national environmental, social and economic purposes. The data are classified according to category of consumer and geographical location and can be used to evaluate environmental, social and economic policy over time.

5.2 Accuracy and Reliability

Administrative data were provided by Gas Networks Ireland. The data are considered to be reliable. The meter readings data were converted to monthly and quarterly consumption estimates by Gas Networks Ireland. Meter readings can be actual or estimated. In some cases, an estimated reading that was too high results in a negative reading for a subsequent period i.e. no attempt was made to adjust the earlier over- or under-estimate. The data file provided to the CSO did not provide information on whether the consumption in a period was based on an estimated reading. The results are broadly consistent with Gas Network Ireland reports and with the Sustainable Energy Authority of Ireland energy balances (after adjustments were made for CHP plants).

5.3 Timeliness and Punctuality

Future releases will be published with a time-lag of around six months.

5.4 Coherence

Data are reviewed in relation to amounts from previous years to assess consistency.

5.5 Comparability

Not applicable.

5.6 Accessibility and Clarity

5.6.1 Assistance to Users, Special Analyses

Background notes are provided with each release on the CSO website.

5.6.2 Revisions

Revisions will be made in the case that further data become available or in the case of assigning non-residential users to NACE Rev. 2 sectors.

5.6.3 Publications

The release is available on the CSO website.

5.6.4 Confidentiality

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