

# **Standard Report on Methods and Quality for Networked Gas Consumption**

This documentation applies to the reporting period:

**2017**

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## 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 statistics and accounts.

### 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 were 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 government, the media, and the public.

### 2.8 Legal basis

National reporting of networked gas consumption data is done on a voluntary basis. However the data will be used by CSO as an input into a legal reporting obligation to Eurostat on 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. Five counties (Donegal, Kerry, Leitrim, Longford, 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 around 669,000 residential gas meters in 2017.

### 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 2011-2017 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. 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 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, customer 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 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 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.