Department for
Business, Energy
& Industrial Strategy

ANNEX B:

Overview of data tables

June 2020

This is a National Statistics publication

The United Kingdom Statistics Authority has designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the UK Statistics Authority: Code of Practice for Statistics.

Designation can be broadly interpreted to mean that the statistics:

- meet identified user needs
- are well explained and readily accessible
- are produced according to sound methods, and
- are managed impartially and objectively in the public interest

Once statistics have been designated as National Statistics it is a statutory requirement that the Code of Practice shall continue to be observed.

© Crown copyright 2020

This publication is licensed under the terms of the Open Government Licence v3.0 except where otherwise stated. To view this licence, visit nationalarchives.gov.uk/doc/open-government-licence/version/3 or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or email: psi@nationalarchives.gsi.gov.uk.

Where we have identified any third-party copyright information you will need to obtain permission from the copyright holders concerned.

Any enquiries regarding this publication should be sent to us at:
EnergyEfficiency.Stats@decc.gsi.gov.uk

Contents

1. Domestic Consumption in England and Wales 5
Headline tables 5
Additional tables 5
2. Multiple attributes table 6
3. NEED Data Explorer 7
4. Impact of measures in England and Wales 8
Headline tables 8
Additional Tables 9
Impact of measures over time 9
5. Scotland 10
Headline tables 10
Additional tables 10
Headline table – impact of measures 11

Department for
Business, Energy
& Industrial Strategy

This document provides an overview of the data tables published with NEED 2020.

All tables are published as Microsoft Excel files on the BEIS Statistics pages of the Government website:

https://www.gov.uk/government/collections/national-energy-efficiency-data-need-framework

If you require these tables in a different format please contact us on the email address below. Any enquiries regarding this publication should also be sent to us at:

EnergyEfficiency.Stats@decc.gsi.gov.uk

To maximise the usefulness of future publications, please provide feedback by completing the 1 minute survey linked below:
https://www.surveymonkey.co.uk/r/WBDTPGF

1. Domestic Consumption in England and Wales

Headline tables

Headline tables at National level. Mean, median and number in sample for each property attribute and household characteristic for gas and electricity, 2005 to 2018. Data for 2005 to 2010 cover England only, data for 2011 to 2018 cover England and Wales. Attributes and characteristics covered are:

- Floor area
- Number of bedrooms
- Property type
- Property age
- Tenure
- Household income
- Number of adults
- Region
- Output Area Classification
- Rural Urban Classification
- Fuel poverty
- Index of multiple deprivation
- Energy Performance Certificate

Additional tables

Tables at a National level which include headline statistics and details of distributions. Gas and electricity consumption relating to each of the variables outlined above for the headline tables. Data cover 2005 to 2018. Data for 2005 to 2010 cover England only, data for 2011 to 2018 cover England and Wales.

The following statistics are included:

- Mean
- Standard deviation

- 5th percentile
- 10th percentile
- Lower quartile
- Median
- Upper quartile
- 90th percentile
- 95th percentile

2. Multiple attributes table

A single table with multiple property attributes in each row, covering gas and electricity consumption in 2018 for England and Wales. Consumption figures will not be identical to published consumption figures due to rounding and the removal of small number combinations of categories (where the sample size is below 30). Attributes included are:

- Region (country for Wales)
- Property type
- Property age
- Number of bedrooms
- Gas present
- Electricity profile (Standard or Economy 7)

Statistics included are:

- Number in sample
- Mean
- Upper quartile
- Median
- Lower quartile

Data source	Coverage	Strengths	Weaknesses
Consumption data	• Covers Great Britain	• Good coverage of almost all properties (post matching) • Data provided by energy suppliers • Gas data are weather corrected	• Based on billing data (sometimes estimated) • Gas and electricity years don't cover calendar year (or the same period as each other • Domestic/non-domestic split (by profile class, or consumption threshold)
Valuation Office Agency (VOA)	• Covers every property in England and Wales	• Excellent coverage–more than 99 per cent of properties in the NEED sample for all variables	• No data for Scotland • Some data may not be up to date
Experian	• Data available for each household in the UK	• Best source of data at property level on household characteristics	• Modelled data with varying accuracy at property level
DECC/Ofgem/HEED energy efficiency datasets (including ECO, ECO excess and Green Deal measures)	• Covers households in the UK	• These datasets contain data for measures installed in homes in the UK including the date of installation	• Only covers measures installed through Government schemes; no information on measures installed by households themselves or installed when the property is built • Matching of (converted) flats not reliable • ECO excess dataset has inconsistent address information and almost a third of the dataset could not be matched to AddressBase
Central Feed-in Tariff Register (FiTs)	• Covers every property in Great Britain.	• Excellent coverage–contains detailed property information on all microgeneration installations receiving FiTs	• Excludes microgeneration installations that are not registered for FiTs
Gas Safe Boiler Installations	• Covers every property in Great Britain.	• Excellent coverage–contains information on allregistered boiler installations in Great Britain	

3. NEED Data Explorer

The NEED Table Creator provides users with the ability to create bespoke cross tabulations on consumption by property attributes and household characteristics, based on the data available from NEED. Two variables can be selected to be considered at once (e.g. property age and property type), with mean, median or number of observations shown in the table. There is also a choice of fuel (electricity or gas). The tool includes electricity and gas consumption data for each year from 2005 to 2018. Attributes and characteristics covered are:

- Floor area
- Number of bedrooms
- Property type
- Property age
- Tenure
- Household income
- Number of adults
- Fuel Poverty Quintile

- Index of multiple deprivation
- Region

4. Impact of measures in England and Wales

Headline tables

Impact of a measures analysis assesses the impact of one of measure energy efficiency measures on consumption (gas for all measures except Solar PV). The tables use measures installed between May 2018 and May 2019.

Single measures assessed in Tables 1 and 3 are:

- Cavity wall insulation
- Loft insulation
- Solid wall insulation
- Condensing boiler
- Solar photovoltaic cells

Combinations of measures assessed in Tables 2 and 4 include different combinations of the measures listed above.

Tables 1 and 2 include:

- Number in sample
- Median and mean percentage saving
- Median and mean kWh saving

Tables 3 and 4 include:

- Number in sample
- Percentage difference in gas consumption: mean, 5th percentile, lower quartile, median, upper quartile, 95th percentile

Additional Tables

Impact of a measures analysis assesses the impact of one of measure energy efficiency measures on consumption (gas for all measures except Solar PV). The tables use measures installed between June 2017 and June 2018. A separate file is published for each of the following installed measures. (**Note that figures covering the latest gas year will be published later in 2020**):

- Cavity wall insulation
- Loft insulation
- Solid wall insulation
- Condensing boiler
- Solar photovoltaic cells

With the impact of the measure broken down in different tables by:

- Energy Performance Certificate (EPC)
- Region
- Property age
- Property type
- Number of bedrooms
- Tenure
- Household income
- Number of adults
- ONS output area classification super group

Impact of measures over time

Impact of a measures over time gives the savings of measures multiple years after installation. Single measures assessed in Table 1 are:

- Cavity wall insulation
- Loft insulation
- Solid wall insulation
- Condensing boiler

- Solar photovoltaic cells
- Total energy savings

Gives the total energy savings from installing an energy efficiency measure, accounting for both gas and electricity savings. Single measures includes are:

- Cavity wall insulation
- Loft insulation
- Solid wall insulation
- Condensing boiler
- Solar photovoltaic cells

5. Scotland

Headline tables

Headline tables for Scotland. Mean, median and number in sample for each property attribute and household characteristic for gas and electricity, 2011 to 2018. Attributes and characteristics covered are:

Number of bedrooms

Property type

Property age

Tenure

Household income

Number of adult occupants

Floor area

Additional tables

Additional tables for Scotland which include headline statistics and details of distributions. Gas and electricity consumption relating to each of the variables outlined above for the Scotland headline tables. Data cover 2011 to 2018. The following statistics are included:

Mean

Standard deviation

5th percentile

10th percentile

Lower quartile

Median

Upper quartile

90th percentile

95th percentile

Headline table – impact of measures

Impact of a measures analysis assesses the impact of one of measure energy efficiency measures on consumption (gas for all measures except Solar PV). The tables use measures installed between May 2018 and May 2019.

The table includes:

- Number in sample
- Median and mean percentage saving
- Median and mean kWh saving

Single measures assessed in the table are:

- Cavity wall insulation
- Solid wall insulation
- Condensing boiler
- Solar photovoltaic cells

Combinations of measures assessed in the table are:

- Cavity wall insulation
- Solid wall insulation
- Condensing boiler
- Solar photovoltaic cells
- Combinations of measures assessed in the table are:
- Condensing boiler and heat controls

NEED 2020 Annex B: Overview of Data tables

This publication is available from: https://www.gov.uk/government/collections/national-energy-efficiency-data-need-framework

If you need a version of this document in a more accessible format, please email enquiries@beis.gov.uk. Please tell us what format you need. It will help us if you say what assistive technology you use.