

## Sub-national consumption tables: 2016 & 2017

### Introduction

BEIS publish sub-national gas and electricity consumption figures using electricity and gas consumption data for all meters in Great Britain. BEIS have already published data on gas and electricity consumption in 2017 at Local Authority and at Lower and Middle Super Output Areas level (December 2018). These tables are available at:

[www.gov.uk/government/collections/sub-national-electricity-consumption-data](http://www.gov.uk/government/collections/sub-national-electricity-consumption-data) (electricity) and [www.gov.uk/government/collections/sub-national-gas-consumption-data](http://www.gov.uk/government/collections/sub-national-gas-consumption-data) (gas).

Domestic gas and electricity consumption data at postcode level was previously published for 2015 (March 2017) and 2013 (March 2015). These tables are available at:

[www.gov.uk/government/collections/sub-national-electricity-consumption-data#postcode-level-data](http://www.gov.uk/government/collections/sub-national-electricity-consumption-data#postcode-level-data) (electricity) and [www.gov.uk/government/collections/sub-national-gas-consumption-data#postcode-level-data](http://www.gov.uk/government/collections/sub-national-gas-consumption-data#postcode-level-data) (gas).

This document sets out the sub-national consumption tables published under Energy Trends in March 2019. This adds to the datasets already released by providing data for 2016 and 2017 for:

- Postcode level domestic gas consumption
- Postcode level domestic electricity consumption for both standard and economy 7 meters
- Sub-national (LA, MSOA, LSOA, postcode) level domestic electricity consumption for prepayment meters

For all the postcode level tables, the data have been aggregated to partial postcode level where the meter count drops below 6 as this is considered disclosive. All postcode tables cover meters in England, Scotland and Wales.

The postcode level data contains a different overall meter count and consumption from data published at Local Authority, MSOA and LSOA level as any ‘unallocated’ meters are removed. The number of postcodes contained in this table is less than the number of postcodes in Great Britain. This is because:

- Some meters and consumption cannot be allocated to a postcode due to insufficient or incomplete postcode information.
- Further differences occur when the number of operating prepayment meters in a postcode are disclosive and have been aggregated into the partial postcode (e.g., AB1) or removed from the data where the partial category is also disclosive.

### Overview of tables

#### Postcode level domestic gas consumption for 2016 and 2017

The meter count and total, mean and median consumption of domestic gas meters at the postcode level. These tables use the same method for classifying meters as domestic or otherwise as other sub-national tables: all meters consuming under 73,200 kWh annually are classed as domestic. The tables are available at:

[www.gov.uk/government/collections/sub-national-gas-consumption-data#postcode-level-data](http://www.gov.uk/government/collections/sub-national-gas-consumption-data#postcode-level-data).

### **Postcode level standard meter domestic electricity consumption for 2016 and 2017**

The meter count and total, mean and median consumption of standard domestic electricity meters at the postcode level. Note that this does not include economy 7 meters. The data for each year is broken into separate .csv files so that no table exceeds 1 million rows for users of certain versions of Microsoft Excel. These tables use the same method for classifying meters as other sub-national tables, where the meter profile and annual consumption below 100,000 kWh are used to determine whether a meter is domestic or otherwise. The tables are available at:

[www.gov.uk/government/collections/sub-national-electricity-consumption-data#postcode-level-data](http://www.gov.uk/government/collections/sub-national-electricity-consumption-data#postcode-level-data).

### **Postcode level economy 7 meter domestic electricity consumption for 2016 and 2017**

The meter count and total, mean and median consumption of economy 7 meters at the postcode level. This uses the same logic to classify meters as used in the December 2018 sub-national publication where the profile of the meter is used to determine whether a meter is an economy 7 meter. The tables are available at:

[www.gov.uk/government/collections/sub-national-electricity-consumption-data#postcode-level-data](http://www.gov.uk/government/collections/sub-national-electricity-consumption-data#postcode-level-data).

### **Prepayment meter domestic electricity consumption for 2017**

Tables estimating the number of prepayment meters at local authority, Middle Layer Super Output Area (MSOA), Lower Layer Super Output Area (LSOA) and postcode levels. Included are the meter count and total, mean and median consumption. This is the first time BEIS has released sub-national statistics on prepayment meters and a methodology and guidance note is included within this article at Annex A. The tables are available at:

[www.gov.uk/government/collections/sub-national-electricity-consumption-data](http://www.gov.uk/government/collections/sub-national-electricity-consumption-data)

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## Annex A: Prepayment electric meter methodology and guidance note

This methodology and guidance note provides detail on how BEIS identify electricity consumption from prepayment meters.

BEIS use a Meter Point Administration Number (MPAN) to link electric meter information from three sources:

- **Meter data – Subnational electric meter point data.** Data is collected from electricity meters as part of BEIS annual subnational electric consumption publication. This data source is used to collect meter profile information to classify a meter as non-domestic and to identify key meter tariffs.
- **ECOES – Electricity Central Online Enquiry Service.** Data is published as a monthly report to assist suppliers in the customer transfer process. ECOES is used to identify the type of meter and allows for the identification of smart meters operating in prepayment mode. This data is collected by ECOES from the Supplier Meter Registration Service.
- **MEX – NHH Meter Exchange Data.** Data is collected by Elexon and is based on Meter Technical Details (MTD) sent over the Data Transfer Network (DTN). This data source is used to identify the type of meter and is records all changes of physical meters.

BEIS have used a combination of sources as one source does not capture the number of prepayment meters estimated by BEIS' survey of electricity suppliers. For smart meters the ECOES Meter Time-switch Code (MTC) variable is used to identify smart meters operating as prepayment.

### Steps in method to identify prepayment meters:

1. Identify prepayment meters from MEX where the variable meter\_type is equal to 'K', 'T' or 'S' (where 'K' refers to 'Key', 'T' refers to 'Token' and 'S' refers to 'Smartcard prepayment').
2. Identify prepayment meters in ECOES where the variable meter\_type is equal to 'K', 'T' or 'S' (where 'K' refers to 'Key', 'T' refers to 'Token' and 'S' refers to 'Smartcard prepayment').
3. Meter data is used to identify a key meter tariff where a Standard Settlement Code (SSC) is equal to '58' or '243' (where '58' and '243' refers to 'Key meter pseudo tariff').
4. An MPAN is classified as prepayment where it is identified in steps 1 to 3.
5. Remove meters with a non-domestic meter profile using BEIS where profile is not equal to '1' or '2'.
6. Meter data is used to remove meters consuming less than 100kWh or more than 100,000 kWh per annum.

### Smart meters operating as prepayment meters

The number of smart meters operating in prepayment mode was calculated estimated based on a snapshot of data taken on the 30<sup>th</sup> of January 2018. A feature of smart meters is they can be updated over the airwaves to change from prepayment mode to standard mode and vice versa. These changes are not detectable with the available data sources, and a meter could change multiple times in a given year. Smart meters which are identified as prepayment meters have therefore been excluded from the published tables, as this additional uncertainty means that the final figures are insufficiently reliable for publication.