

# **Smart Meter Statistics**

Methodology Note



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# Methodology

This note provides an overview of the methodology used to produce estimates of the number of meters installed and operating during the roll-out of the Smart Metering Programme which is published in regular quarterly statistical releases

(https://www.gov.uk/government/collections/smart-meters-statistics).

This methodology note is intended to help users understand the assumptions made in the compilation of these statistics including some of the data limitations.

Currently these data are considered to be Experimental Statistics; this means they are new statistics and have not undergone the full evaluation process that is required for National Statistics. The statistics are published to improve the transparency of the Programme (for example, by enabling Parliament and other stakeholders to scrutinise and engage with the Programme), to enable debate to be focussed on actual timely data, to involve users and stakeholders in their development and as a means to build in quality assurance at an early stage.

#### Data collection

The Government issued a consultation (in May 2012¹) on information requirements for monitoring and evaluating the Smart Metering Programme roll-out. The Government concluded in its response to the consultation (published in December 2012²) to request monitoring information from the large energy suppliers on a quarterly basis and on an annual basis from small energy suppliers on their roll-out progress across Great Britain.

In 2013, the Government issued a formal Information Request to the large energy suppliers to provide quarterly monitoring information and an annual supplier report under licence conditions. Small suppliers are required to provide this on an annual basis.

For the purposes of smart meter reporting, 'large energy suppliers' are classed as those with a customer base of more than 250,000 domestic gas or 250,000 domestic electricity customers. Once small energy suppliers pass this reporting threshold, they transition to quarterly reporting as a large supplier.

<sup>&</sup>lt;sup>1</sup> Smart Meters Programme Strategy and Consultation on Information Requirements for Monitoring and Evaluation, DECC, May 2012: <a href="https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/43119/5454-strategy-cons-smart-meters-monitor-eval.pdf">https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/43119/5454-strategy-cons-smart-meters-monitor-eval.pdf</a>

<sup>&</sup>lt;sup>2</sup> Smart Meters Programme: Government response to Consultation on Information Requirements for Monitoring and Evaluation, DECC, December 2012: https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/43136/7206-gov-resp-cons-sm-monitor-evaluation.pdf

Since this publication series began, the following companies have transitioned, meeting the large supplier criteria:

Utility Warehouse
First Utility
OVO
Utilita
- data incorporated from Q1 2015
- data incorporated from Q1 2015
- data incorporated from Q1 2016

Extra Energy - data incorporated from Q2 2016; removed from Q3 2017

Co-operative Energy - data incorporated from Q4 2016

Economy Energy - data incorporated from Q4 2017; removed from Q4 2018

Hudson Green Star
 Bulb
 Octopus
 data incorporated from Q4 2017
 data incorporated from Q1 2018
 data incorporated from Q4 2018

Extra Energy transitioned to small supplier totals from quarter four 2017. Installations carried out during the period Q2 2016 to Q3 2017 are reflected in the large supplier totals. In 2018 Extra Energy ceased trading and their portfolio position has since been absorbed by Scottish Power.

OVO acquired Economy Energy customers during early January 2019 when the supplier ceased trading. The Economy Energy Q3 2018 position was used as an estimate for Q4 2018 and from the Q1 2019 publication, they are incorporated with OVO's portfolio.

Small supplier data were published alongside large supplier data, for the first time, in the final report for 2015 (Q4 2015) - following receipt of good quality data returns for 2015. Prior to this, data received from many of the small suppliers did not meet the quality standards required for publication.

The figures within this publication series represent a large sub-set of meters found in other Departmental consumption statistics.<sup>3,4,5</sup>

#### Data source

Energy suppliers extract data from their internal systems and are requested to provide data on a regular basis - quarterly for large suppliers; annually for small. This is received by the Programme one month after the end of each reporting quarter. Data received from energy suppliers is aggregated to provide an industry-level estimate to ensure commercial sensitivity is protected. After appropriate quality assurance, BEIS uses this data to produce end of quarter estimates, which are then published in the quarterly statistical releases.<sup>6</sup>

Currently the Programme collects limited information, which includes estimates on the number of smart meters installed and operated by energy suppliers in domestic properties and

<sup>&</sup>lt;sup>3</sup> State of the Market Assessment, Ofgem, March 2014: https://www.ofgem.gov.uk/ofgem-publications/86804/assessmentdocumentpublished.pdf

<sup>&</sup>lt;sup>4</sup> Sub-national gas consumption statistics: https://www.gov.uk/government/collections/sub-national-gas-consumption-data

<sup>&</sup>lt;sup>5</sup> Regional and local authority electricity consumption statistics 2005 - 2013, March 2015: https://www.gov.uk/government/statistical-data-sets/regional-and-local-authority-electricity-consumption-statistics

<sup>&</sup>lt;sup>6</sup> Where data returns are missing from suppliers, portfolio positions were imputed from the most recent submission or other reliable intel.

estimates on the number of smart and advanced meters installed and operated by energy suppliers in smaller non-domestic sites. We will continue to update the detail on each part of the Smart Metering methodology note as we publish more information in the quarterly statistical releases.

### **Data Quality**

The quality of the data returns from energy suppliers are described as:

High quality

- error free returns.

Good quality

- minor errors which do not affect the data reported or our

ability to report on these statistics in this series.

Poor quality

- supplier failed to provide a return therefore portfolio positions were imputed from the most recent submission or other reliable intel.

## Reporting methodology

The number of meters installed in a given period reflects all meters installed during that period (quarterly for large energy suppliers and annual for small energy suppliers), whereas the number of meters in operation is calculated at the end of the given quarter.

The number of smart meters reported as installed in domestic properties in any quarter is defined as the number of SMETS gas or electricity meters (which may require an upgrade) that have been installed.

The number of smart meters reported as installed in non-domestic sites in any quarter is defined as the number of SMETS gas or electricity meters (which may require an upgrade), or Advanced gas or electricity meters that have been installed.

Up until quarter one 2016, domestic smart meter and non-domestic smart and advanced meters installed prior to the reporting period in which transitioning energy suppliers are incorporated, were included within the <u>historic installation</u> estimates for large suppliers. This ensured that reported totals installed to date by large energy suppliers were as accurate as possible. Following the introduction of small supplier statistics in quarter four 2015, this methodology has changed. Historic installation totals for transitioning suppliers will now remain in the small supplier totals reported on at the end of the calendar year (Q4 reports).

Smart Meters operating in 'smart mode' are reported on in this report. This may differ from the total numbers installed for a number of reasons:

- Operational totals are reported at the end of each quarter for large suppliers (or each
  year for small suppliers). When a customer changes their energy supplier from a large
  to small supplier, the meter no longer appears in the large supplier count for that
  quarter. The customer meter will only count within the small supplier figures at the end
  of the reporting year. Data for intervening quarters therefore miss this customer meter
  count.
- Technical issues may lead to some meters operating in traditional mode. These can include meters unable to communicate externally via the wide area network or

customers choosing to switch to suppliers currently unable to operate them in smart mode.

Underlying figures are rounded to the nearest 100 in the commentary within the report but provided in full in the accompanying tables.

### Revisions policy

On occasion, previously published data will need to be revised due to changes to source data or correcting of errors. These will be made at the time of the next release. Some data will be provisional and subject to future revisions and will be denoted with "p". Data that are revised from the previous release will be denoted with "r". Where a large revision has taken place, reasons will be provided.

#### Further information and feedback

Any enquiries or comments in relation to the methodology set out in this document should be sent to Mita Kerai in the Smart Meter Statistics Team at the following email address: <a href="mailto:smartmeter.stats@beis.gov.uk">smartmeter.stats@beis.gov.uk</a>

Further information on the range of BEIS's energy statistics is available at: <a href="https://www.gov.uk/government/organisations/department-for-business-energy-and-industrial-strategy/about/statistics">https://www.gov.uk/government/organisations/department-for-business-energy-and-industrial-strategy/about/statistics</a>

