Department for
Business, Energy
& Industrial Strategy

Smart Meter Statistics

Quarterly Report to end March 2019

Experimental National Statistics

May 2019

Any enquiries regarding this publication should be sent to us at:
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Contents

Executive Summary

This quarterly release presents statistics on the roll-out of smart meters in Great Britain. It includes information on the number of smart meters installed in domestic properties and smaller non-domestic sites during the first quarter of 2019 by the 14 large energy suppliers, as well as the total number of meters operated by these suppliers on 31 March 2019.

Information on small energy suppliers[1,2] roll-out activity during 2018 is also included in this report.

Key findings:

Smart meters in operation

- **There are now over 14.3 million smart and advanced meters operating across homes and businesses in Great Britain, by both large and small energy suppliers – a 4.2 per cent increase from the previous quarter.**

Millions

Meters operated as at 31 March 2019 (Large suppliers) and 31 December 2018 (Small suppliers)	Domestic	Non-domestic	All
Smart meters	13.19	0.08	13.27
Advanced meters	-	1.07	1.07
All smart and advanced meters	13.19	1.15	14.34

Note, Individual numbers are independently rounded to the nearest 10,000 and can result in totals that are different from the sum of their constituent items.

- Over a quarter of all domestic meters operated by both large and small energy suppliers are now smart meters operating in smart mode, and over a third of all nondomestic meters are operating in smart mode, or with advanced functionality.

[1] Small energy supplier statistics are collected on an annual basis, therefore information on these suppliers in this publication align with the large supplier returns.
[2] Over the course of the calendar year there is a likelihood that small suppliers approaching the 250,000 customer threshold by end year will transition to ‘large’ supplier status. Equally, large suppliers below this threshold at year end will transition back to small supplier status. There are currently 14 large suppliers and 72 small suppliers included in this report.

Smart meter installations

- A total of 1,031,600 domestic smart meters were installed by large energy suppliers in the first quarter of 2019 (457,900 gas and 573,700 electricity meters). This represents a 6.7 per cent decrease in domestic smart meter installations compared to the previous quarter.

- Over the same period, 18,500 smart and advanced meters were installed in smaller non-domestic sites by large energy suppliers (of which 14,100 were advanced meters and the rest smart meters). This shows a 22 per cent decrease in non-domestic installations compared to the previous quarter.

- Industry information from the Data Communications Company (DCC) show that as of the end at March 2019, there were just over 630,000 gas and electricity domestic SMETS2 meters connected to the system. This has increased from 240,000 at the end of December 2018. The DCC reported that the millionth SMETS2 meter connected to their system on May 22nd 2019.

- To date, around 17.14 million smart and advanced meters have been installed in homes and businesses across Great Britain by both large and small energy suppliers – around 15.97 million (93 per cent) of these were installed in domestic properties and just over 1.17 million in smaller non-domestic sites.

Chapter 1: Introduction to Smart Metering

1.1 Overview

The Government is committed to ensuring that every home and small business in the country is offered a smart meter by the end of 2020. The Smart Metering Programme aims to roll-out over 50 million smart gas and electricity meters to all domestic properties and smart or advanced meters to smaller non-domestic sites in Great Britain - impacting approximately 30 million premises. Further information about the Programme can be found on the Gov.uk website.

The Smart Metering Programme is being delivered in two phases. During the Foundation Stage, which began in 2011, the Government engaged with the energy industry, consumer groups and other stakeholders and put commercial and regulatory frameworks in place to support smart metering, trial and test systems, protect consumers and learn lessons from early installations. This is followed by the main installation stage, which began in November 2016 and will run to the end of 2020. This is the period when most households and small businesses will have smart meters installed by their energy supplier using the national smart meters data and communications infrastructure.

Energy suppliers are responsible for planning and delivering the installation of smart meters for their customers and are free to plan the roll-out in a way that suits their business and the needs of their customers, subject to the requirement to complete the roll-out by the end of 2020. As such, energy suppliers' proposed approaches to the roll-out vary and take into account factors such as the location of their customer base, installation workforce and when their customers would need their traditional meters replaced on a routine basis. The approaches adopted by energy suppliers may also change as they progress through the roll-out. Fluctuations in the number of smart meters installed each quarter is therefore expected, as different energy suppliers install smart meters according to their own commercial strategies.

The first statistical report on the progress of Smart Metering roll-out obligation for large energy suppliers was published in September 2013 and has been updated every quarter since. From Q4 2015, end year reports include smart meter roll-out activity carried out by small suppliers during the calendar year (see Section 1.3 for further details on large and small suppliers). As well as presenting the latest quarterly activity for large energy suppliers, this report includes the latest annual update on small supplier activity for 2018.

BEIS will continue to monitor smart meter installations and the number of meters in operation in Great Britain on a quarterly basis until the end of the Programme. More detailed information on the methodology used to produce estimates of the number of meters installed and operating during the roll-out period is included in the accompanying methodology note, available at:

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

1.2 Types of Premise

Under the smart meter obligations, energy suppliers are required to replace traditional meters with smart or advanced meters, in two types of property.

Domestic Properties

Domestic properties are defined as properties where the customer is supplied with electricity or gas, wholly or mainly for domestic purposes.

Smaller non-domestic sites

These are business or public sector customers whose sites use low to medium amounts of electricity (defined as a smaller non-domestic site falling within Balancing and Settlement Code Profile Classes[3] 1, 2, 3 or 4) or gas (defined as a smaller non-domestic site using less than 732MWh of gas per annum). The sites therefore range from individual micro- and small businesses to the smaller sites of private and public sector organisations.

1.3 Types of Supplier

Large energy suppliers

Large energy suppliers are defined as those that supply gas or electricity to at least 250,000 domestic customers; they may also supply non-domestic sites. A large energy supplier need only supply 250,000 domestic customers a single fuel to be classed as a large energy supplier (i.e. an energy supplier supplying gas to 250,000 domestic customers but who does not supply electricity customers is still classed as a large energy supplier). Under their supply licence conditions large energy suppliers are required to provide numbers of smart meter installations and meters in operation to BEIS on a quarterly basis. This information is reported in the quarterly statistics.

Currently fourteen energy suppliers meet these criteria and are referred to as large energy suppliers throughout this report (see Annex for further details).

Small energy suppliers

Small energy suppliers are defined as those that supply gas to less than 250,000 domestic customers and electricity to less than 250,000 domestic customers; they may also supply non-domestic sites. Under their supply licence conditions, small energy suppliers are required to provide information to BEIS on an annual basis and are therefore reported on at the end of the calendar year.

The number of small suppliers reported on year to year is subject to change, as some suppliers will change classification to ‘large’ supplier status over the course of the calendar year, while others might enter, or exit the retail energy market.

At the end of 2018, 72 small energy suppliers provided data returns under these conditions and are referred to as small suppliers throughout this report (see Annex for further details).

[3] https://www.elexon.co.uk/knowledgebase/profile-classes/

1.4 Types of Gas and Electricity meters

Smart Meters

Smart meters are the next generation of gas and electricity meters and offer a range of intelligent functions. All domestic customers will be offered an In-Home Display (IHD) as part of the smart meter roll-out, which shows how much energy is being used, and how much it is costing, in near-real-time. This information will help them control and manage their energy use, save money and reduce emissions. Smart meters will also bring an end to estimated meter readings, providing customers with more accurate bills.

A smart meter is compliant with the Smart Meter Equipment Technical Specification[4] (SMETS) and has functionality such as being able to transmit meter readings to energy suppliers and receive data remotely. Each large energy supplier reports the number of smart meters it has installed and is operating in smart mode to BEIS on a quarterly basis, while small suppliers report to BEIS on an annual basis. This includes both meters that are SMETS compliant and those they expect to upgrade to become SMETS compliant. Some smart meters currently installed will need to receive updates before they are fully SMETS compliant.

Only smart meters that meet the SMETS regulations count towards supplier roll-out obligations. Energy suppliers must take all reasonable steps to replace other meter types in domestic properties with these meters by the end of 2020 in order to fulfil their licence conditions.

The national data and communications infrastructure, being delivered by the Data and Communications Company (DCC) is now live across GB, enabling energy suppliers to install and operate the new generation of smart meters (SMETS2 meters) on its systems. It is the Government's intention to also enrol the first generation of smart meters (SMETS1 meters) into this network, ensuring that consumers have the same experience of smart meters, operating with full functionality, regardless of which type of meter they have.

Smart Meters Operating Mode

Smart Meters operating in 'smart mode' are reported on in this report. Data from suppliers indicates that 2.3 million smart meters were known to be operating in traditional mode as at end 31st March 2019. Smart meters can temporarily operate in traditional mode for a number of reasons including:

- meters being unable to communicate via the wide area network at the point of reporting,
- customers switching to suppliers currently unable to operate the meter in smart mode,
- customers having their meter installed in traditional mode,
- installed meters yet to be commissioned (e.g. in new build premises).

The enrolment of SMETS1 meters into the national smart meter communications network will make first generation smart meters full interoperable and enable all energy consumers to maintain their smart services when switching.

[4] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/381535/SMIP_E2E_SMETS2.pdf

Smart-type Meters
Some suppliers have chosen to make an early start by rolling out smart-type meters without the full functionalities included in SMETS. Energy suppliers have learned lessons from installing and operating smart-type meters, which will benefit the smart meter roll-out and has allowed their customers to have early access to some of the benefits of smart metering. All data relating to smart-type meters are referred to as such in this report.

Smart-type meters are not classed as 'smart meters' and therefore do not count towards the supplier's roll-out obligation in domestic sites. Smart-type meters installed in domestic properties will need to be replaced with SMETS compliant smart meters by the end of 2020 in accordance with energy suppliers' roll-out obligations.

Smart-type meters however exceed the minimum specification for advanced meters (described below) and will count towards supplier roll-out obligations in smaller non-domestic sites.

Advanced Meters (only installed in smaller non-domestic sites)
Advanced meters must, at minimum, be able to store half-hourly electricity and hourly gas data, to which the customer can have timely access and the supplier has remote access. However, meters described as "advanced" in this report may have additional functions found in a smart meter that meets the Government's technical specification.

Traditional Meters
Traditional meters are currently found in most domestic and smaller non-domestic sites and do not have any smart capability. Traditional meters will be replaced by smart and advanced meters during the smart meter roll-out. Traditional meters include smart meters operating in traditional mode.

1.5 Further information

The next quarterly publication is planned for publication on 29 August 2019.
The content and format of the quarterly smart meters statistical report is open to review and will seek to include more relevant information as it becomes available (for example, more frequent roll-out progress on the next generation of SMETS meters). The format and context may be subject to change in future versions.

Any enquiries or comments in relation to this statistical release (including suggestions for developing the publication) should be sent to Mita Kerai in the Smart Meter Statistics Team at the following email address:

smartmeter.stats@beis.gov.uk

Contact telephone: 0300 068 5044

Further information on energy statistics is available at:
https://www.gov.uk/government/organisations/department-for-business-energy-and-industrial-strategy/about/statistics

Chapter 2: Domestic Smart Metering

This chapter reports on the latest number of smart meters installed in domestic properties during the first quarter of 2019 by the large energy suppliers; as well as the number of meters operating in smart mode as at 31 March 2019.

Also presented here are the latest domestic smart meter installations reported by small energy suppliers during the full 2018 calendar year, and the numbers operated as at 31 December 2018.[5]

Detailed breakdowns on installation and operating figures can be found in the accompanying tables to this report, available at:

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

2.1 Smart meter installations in domestic properties

Cumulative Installations (to end of March 2019)

To date, around 15.97 million smart meters have been installed in domestic properties to date by both large and small suppliers – a 6.9 per cent increase on the previous quarter's cumulative total.

Large energy suppliers have reported installing an estimated total of 15,319,200 smart meters across domestic properties in Great Britain – 6,611,900 of which have been gas smart meters and 8,707,300 have been electricity smart meters.

Cumulative installations by small energy suppliers totalled around 652,500 smart meters in domestic properties as at the end of 2018.[6,7]

Quarter 1 2019 Installations (January to March)

A total of 1,031,600 smart meters were installed by the **large energy suppliers** in the first quarter of 2019 (457,900 gas and 573,700 electricity meters). This represents a 6.7 per cent decrease in smart meter installations compared to the previous quarter, with gas installations decreasing by 5.7 per cent and electricity by 7.4 per cent.

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[5] Small supplier statistics are collected on an annual basis, with 2018 being the most recent period.

[6] Note, small supplier statistics are collected on an annual basis, with 2018 being the most recent period.

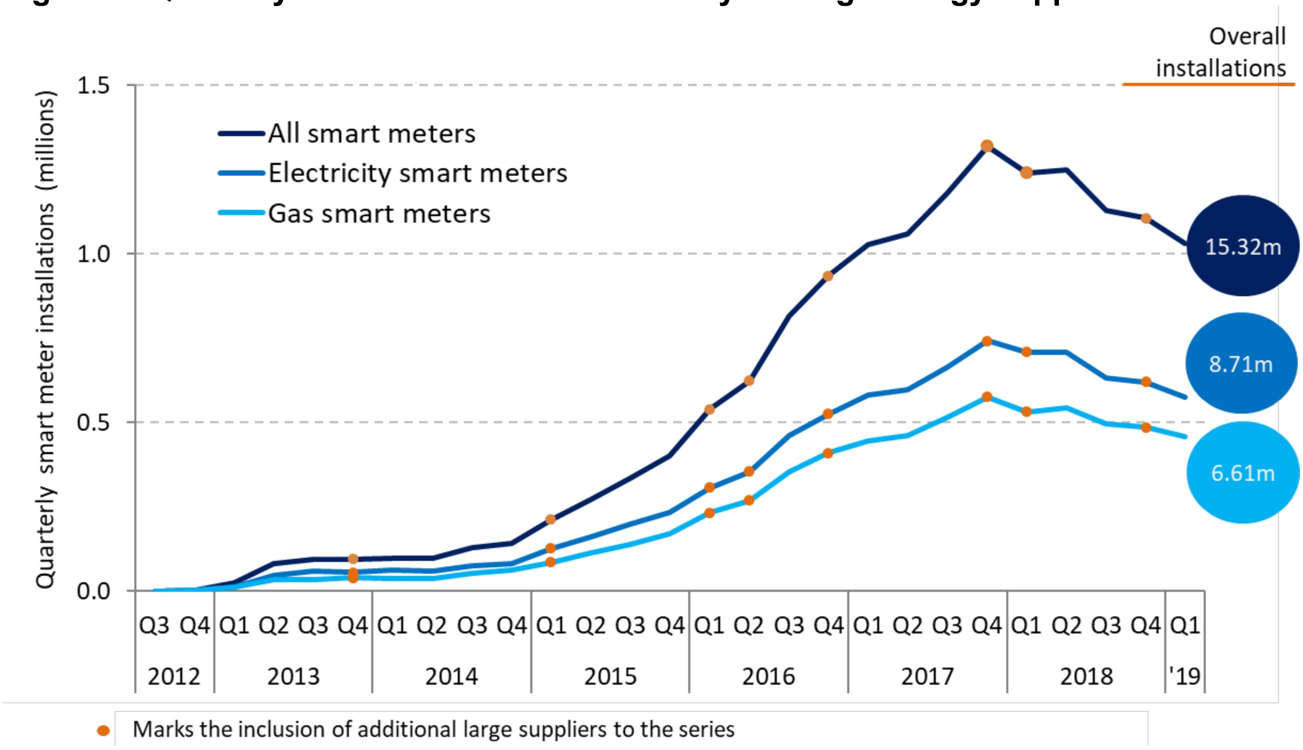
[7] This includes smart meters installed between 2015-2018 details can be found in Table 1b in the accompanying tables https://www.gov.uk/government/collections/smart meters-statistics.

Compared to the same period last year, installation activity by large energy suppliers is down by 17 per cent.[8]

Despite the decrease in domestic installations this quarter, the level of installations remains over 1 million smart meters for the ninth consecutive quarter.

Figure 1 shows quarterly installation activity by large energy suppliers over the course of the Programme.

Figure 1: Quarterly domestic installation activity for large energy suppliers



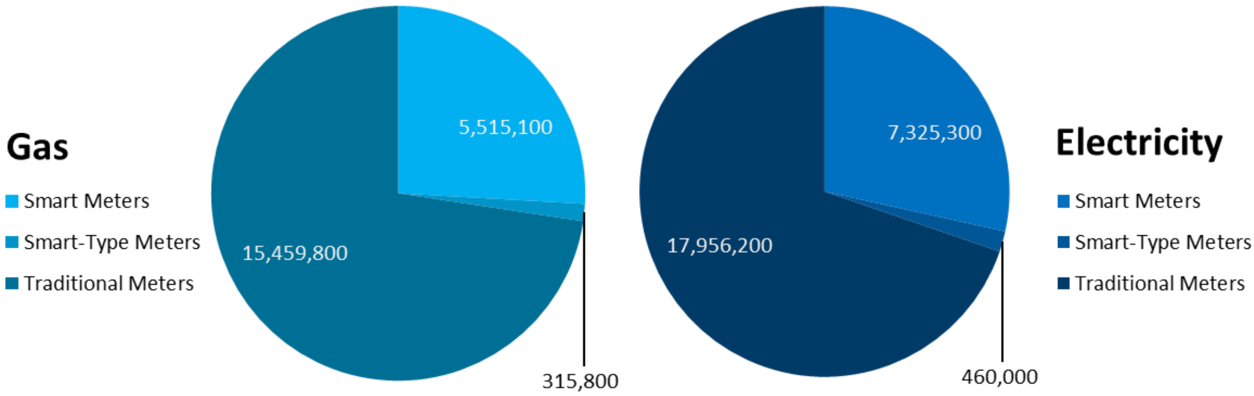
2.2 Operational meters in domestic properties

Meters in operation (as at end of March 2019)

As of 31 March 2019, there were a total of 21.3 million gas meters and 25.7 million electricity meters operated by large energy suppliers in domestic properties across Great Britain. Figure 2 below shows the breakdown of all large supplier operated meters by different meter and fuel types. Note, only smart meters count towards the roll-out figures reported under this Programme for domestic properties.

[8] There have been 2 large supplier transitions since the same period last year.

Figure 2: Domestic meters operated by large energy suppliers as at 31 March 2019[9]



The number of smart meters in operation is defined as the number of smart meters that energy suppliers are operating in smart mode.

Large energy suppliers continue to see steady increases in the number of smart meters in operation from quarter to quarter[10] and as at 31 March 2019 there were 12.8 million smart meters operating in smart mode in domestic properties across Great Britain. Overall, this represents 27 per cent of all domestic meters operated by large energy suppliers.

Small energy suppliers reported operating a total of 352,800 smart meters as at the end of 2018, this is 9.4 per cent of domestic meters operated by small energy suppliers.

Collectively across both large and small energy suppliers there were 13.19 million smart meters in operation in domestic properties in Great Britain as at 31 March 2019, representing 26 per cent of all domestic meters.

Industry information from the Data Communications Company (DCC) show that as of the end at March 2019, there were just over 630,000 gas and electricity domestic SMETS2 meters connected to the system. This has increased from 240,000 at the end of December 2018. The DCC reported that the millionth SMETS2 meter connected to their system on May 22nd 2019.

[9] Individual numbers are independently rounded to the nearest 100 and can result in totals that are different from the sum of their constituent items.
[10] See Table 2a in accompanying tables: https://www.gov.uk/government/collections/smart-meters-statistics

Chapter 3: Non-domestic Smart Metering

This chapter reports on the latest number of smart and advanced meters installed in smaller non-domestic sites during the first quarter of 2019 by large energy suppliers; and the number of meters operated by large suppliers as at 31 March 2019.

Also presented here are the latest smart and advanced meter installations reported by small energy suppliers during the full 2018 calendar year, and the numbers operated as at 31 December 2018.[11]

Detailed breakdowns on installation and operating figures can be found in the accompanying tables to this report, available at:

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

3.1 Installations in smaller non-domestic sites

Cumulative Installations (to end of March 2019)

To date an estimated total of 1.17 million smart and advanced meters have been installed in smaller non-domestic sites by both large and small energy suppliers. These meters count towards energy suppliers' roll-out obligations, 888,500 (76%) of these meters were installed by large energy suppliers.

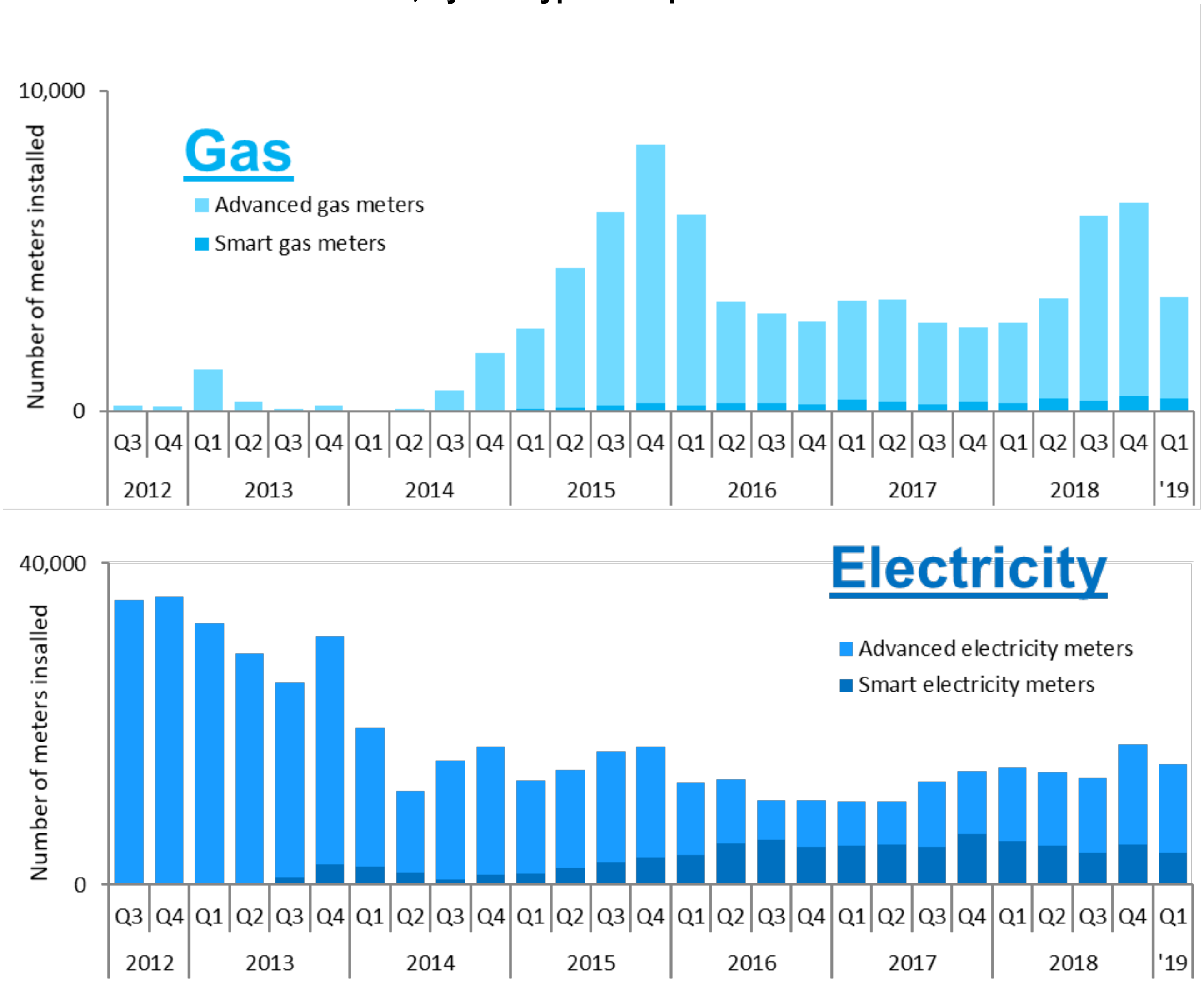
Quarter 1 2019 Installations (January to March)

In the first quarter of 2019, there were 18,500 smart and advanced meters installed in smaller non-domestic sites by **large energy suppliers** (of which 14,100 were advanced meters and the rest smart meters). This represents a 22 per cent decrease from the previous quarter.

Figure 3 shows the number of non-domestic smart and advanced meter installations by large suppliers over time. From the chart, it is apparent that installation volumes tend to vary from one quarter to the next, as different energy suppliers install smart and advanced meters according to their own commercial strategies.

[11] Small supplier statistics are collected on an annual basis, with 2018 being the most recent period.

Figure 4: Number of smart and advanced meters installed by large energy suppliers in smaller non-domestic sites, by fuel type and quarter



Note, the above chart excludes historic data which can be found in the accompanying Excel Tables 3a, 3b and 3c.

3.2 Operational meters in smaller non-domestic sites

Meters in operation (as at end of March 2019)

As at 31 March 2019, there were a total of 2.36 million meters operated by **large energy suppliers** in smaller non-domestic sites in Great Britain. Of these, 712,600 (85,400 gas and 627,200 electricity) were operating in smart mode, or with advanced functionality - representing over a quarter of all non-domestic meters in operation.

Small energy suppliers reported operating a total of 438,000 smart and advanced meters operating with smart or with advanced mode functionality in smaller non-domestic sites as at the end of 2018.

The total number of meters in operation in smaller non-domestic sites is seen to fluctuate between reporting periods. This occurs for a variety of reasons: for example, building demolitions and customers switching to and from energy suppliers who do not operate smart or advanced meters in either a smart mode or with advanced functionality.

Collectively, both large and small energy suppliers were operating 1.15 million smart and advanced meters across smaller nondomestic sites in Great Britain – this accounts for 36% of all nondomestic meters.

Annex: Data and processing

Energy Suppliers

The table below lists the energy suppliers included in the analysis for this report.

14 Large Energy Suppliers (recent transitions):

- British Gas
- Bulb
- Co-operative Energy
- E.ON
- EDF Energy
- Just Energy (Green Star/Hudson)
- Npower
- Octopus Energy
- OVO
- Shell Energy (First Utility)
- Scottish Power
- SSE
- Utilita
- Utility Warehouse

In 2018 Extra Energy ceased trading, Ofgem appointed Scottish Power to take on supplying Extra's customer portfolio under the Supplier of Last Resort (SoLR) arrangements. On the same basis, OVO were appointed to take on Economy Energy's customer portfolio since they ceased trading at the beginning of January 2019.

72 Small Energy suppliers as at 31 December 2018:

- Ampower
- Avanti Gas
- Avid Energy
- Avro Energy
- Axis
- BES Utilities
- Better Energy
- BPG Energy
- Breeze Energy
- Brilliant Energy Supply
- Bristol Energy
- Brook Green Supply
- Bryt Energy
- CNG
- Corona Energy
- Crown Gas and Power
- D-ENERGi
- Daisy Energy Supply
- Dual Energy
- E
- Ecotricity
- ElectroRoute
- ENGIE
- Enstroga
- Entice Energy
- ESB Energy
- Eversmart Energy
- Foxglove Energy
- Gazprom Energy
- GnERGY
- Go Effortless Energy
- Good Energy
- Green Energy
- Green Network Energy
- Gulf Gas and Power
- Haven Power
- Igloo Energy
- iSupply Energy
- Logicor
- MA Energy
- Marble Power
- MB Energy
- Nabuh Energy
- Opal Gas
- Opus Energy
- Orbit Energy
- Orsted
- People's Energy
- PFP Energy
- Pure Planet
- Regent Gas
- Robin Hood Energy
- Simplicity Energy
- SmartestEnergy
- So Energy
- Solarplicity
- Squeaky Energy
- Symbio Energy
- Together Energy
- Tonik Energy
- Total Gas & Power
- Toto Energy
- Tru Energy
- URE Energy
- Utility Point
- Vayu (now Naturgy)
- Verastar
- Xcel Energy
- Yorkshire Gas and Power
- Yu Energy
- Zebra Power
- Zog Energy

Experimental Statistics

These data are released as Experimental National Statistics, this means these statistics have not undergone the full evaluation process that is required for National Statistics. They are published in order to involve users and stakeholders in their development and as a means to build in quality assurance during development.

More information on the methodology is included in the accompanying Methodology note:

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

As with any data collection, there are likely to be some data quality issues to resolve as the process beds in. Therefore, data in the quarterly reports should be treated as provisional and subject to revision.

Any revisions will be marked in the data tables and for any significant revisions we will provide an explanation of the main reasons.

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