

# Smart Meter Statistics in Great Britain: Quarterly Report to end September 2022

24 November 2022

Official Statistics

This report includes an update from all large suppliers in the energy market in Great Britain at end of Q3 2022, with data from small suppliers up to end 2021

As at end of September 2022, **30.3 million** smart and advanced meters were in homes and small businesses across Great Britain; **fifty-four percent** of all meters are now smart or advanced meters, with 26.5 million operating in smart mode

In Q3 2022 large suppliers installed:



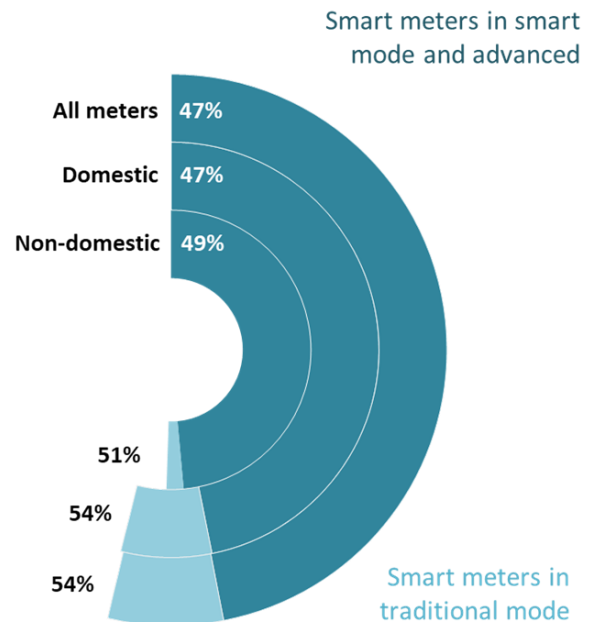
## Domestic

**836,800** smart meters  
21,900 more than Q2 2022



## Non-domestic

**44,900** smart/advanced meters  
16,400 more than Q2 2022



### What you need to know about these statistics:

This quarterly release includes information on the number of smart meters installed in domestic properties and smaller non-domestic sites by large energy suppliers in the third quarter of 2022, as well as the total number of meters operated on 30 September 2022. The report also includes annual information for small suppliers to the end of 2021.

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# Introduction

This quarterly release presents statistics on the roll-out of smart meters in Great Britain. It reports the number of smart meters installed in domestic properties and smaller non-domestic sites during the third quarter of 2022 by large energy suppliers, as well as the total number of meters they operated on 30 September 2022. This release also includes small suppliers' installation activity during 2021 and meters operated at the end of 2021.

The replacement of traditional gas and electricity meters with smart meters is an essential national infrastructure upgrade for Great Britain that will help make our energy system cheaper, cleaner and more reliable. Smart meters are the next generation of gas and electricity meters and offer a range of intelligent functions. For example, they can tell customers how much energy they are using in pounds and pence through an In-Home Display (IHD). This information helps customers manage their energy use, save money and reduce emissions. Smart meters communicate automatically with energy suppliers, which avoids manual meter reads and provides customers with accurate bills.

Smart meters also support the transition to a low-carbon energy system by unlocking new approaches to managing demand. Products such as smart 'time of use' tariffs incentivise consumers to save money by using energy away from peak times and enable technologies such as electric vehicles and smart appliances to be cost-effectively integrated with renewable energy sources.

The successful delivery of smart metering benefits depends upon coordinated effort from a wide range of organisations. The Smart Metering Implementation Programme is led by the Department for Business, Energy & Industrial Strategy (BEIS), regulated by the Office of Gas and Electricity Markets (Ofgem), and delivered by energy suppliers. The majority of meter installations to date have been first generation smart meters (Smart Metering Equipment Technical Specifications, SMETS1). They have provided energy suppliers with valuable experience and are helping consumers save energy and money. Energy suppliers are now installing second generation smart meters (SMETS2) as the default choice.

In 2012, ahead of the national smart metering communications infrastructure being in place, the Government defined a standard, known as SMETS1, to ensure minimum common functionality and to stop the variability in the smart-type meters which some energy suppliers were already installing at that time. This was important to ensure a consistent consumer experience and for these meters to be later enrolled into the communications network and made interoperable between all energy suppliers.

SMETS1 meters are now being moved onto the national communications network, run by the Data Communications Company (DCC), so that consumers regain and keep smart services if they switch supplier. Meters are being enrolled remotely, without consumers needing to take any action, and priority is being given to those which have temporarily lost smart functionality (these meters are referred to as "operating in traditional mode"). SMETS2 meters are connected to the DCC's network from the point of installation, so are already compatible between energy suppliers.

The next quarterly publication is planned for publication on 21 March 2023.

# Meters in operation

In the data tables accompanying this publication, Table 1 shows domestic meters operated by large suppliers, Table 3 shows non-domestic meters operated by large suppliers and Table 5 shows annual data on meters in operation, for both large and small suppliers. All tables also show the split by fuel and meter type.

At the end of September 2022, there were **30.3 million** smart and advanced meters in Great Britain in homes and small businesses.<sup>1</sup> Of these, **26.5 million** were smart meters operating in smart mode or advanced meters. This means that **47%** of all meters were smart in smart mode or advanced meters, with a further 7% of meters being smart meters in traditional mode. In total 54% of meters operating were smart or advanced meters.<sup>2</sup> Table 1 summarises how the total smart meters in operation at the end of Q3 2022 is split across domestic and non-domestic sectors and large and small suppliers. For a full breakdown including by fuel type, see Table 5 in the accompanying tables to this report.

**Table 1: There were 30.3 million smart and advanced meters in operation at the end of September 2022**

Great Britain, to end of Q3 2022

		Large Suppliers (end Q3 2022)	Small Suppliers (end 2021)	Total <sup>3</sup>
<b>Smart (smart mode) and advanced meters</b>	Domestic meters	24,719,000	137,000	<b>26,524,000</b>
	Non-domestic meters	1,222,000	445,000	
<b>Smart (traditional mode)</b>	Domestic meters	3,690,000	57,000	<b>3,814,000</b>
	Non-domestic meters	57,000	10,000	
<b>Total</b>		<b>29,689,000</b>	<b>649,000</b>	<b>30,338,000</b>

Source: Energy Suppliers reporting to BEIS.

Smart meters can temporarily operate in traditional mode for several reasons including:

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

SMETS1 meters are being remotely enrolled onto the DCC's national network in order to restore smart services.

## Operational meters in domestic properties

As of 30 September 2022, there were a total of 23.8 million gas meters and 28.8 million electricity meters operated by large energy suppliers in domestic properties across Great Britain. Figure 1 shows detail on the breakdown of all large supplier-operated meters by different meter and fuel types.

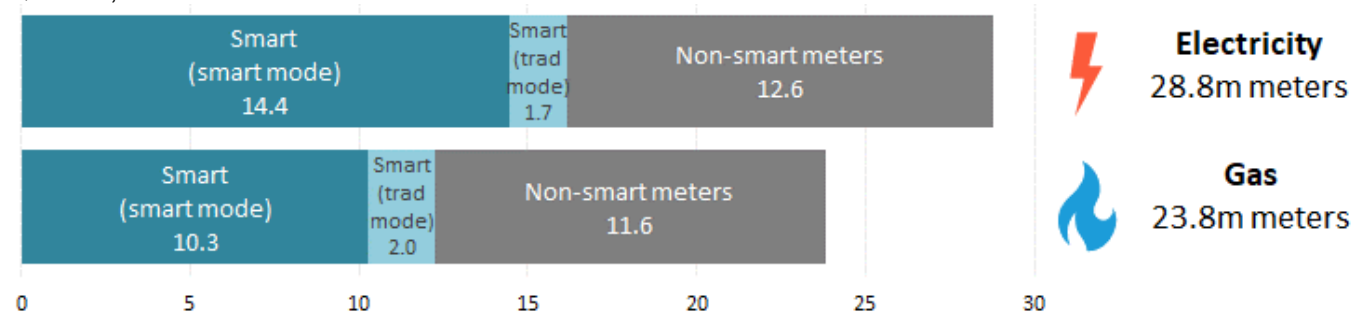
<sup>1</sup> This includes updated data from both large and small suppliers to the end of the year

<sup>2</sup> Note, statistics presented are independently rounded. This means the sum of their components may differ from the totals.

**Figure 1: Fifty-four percent of domestic meters operating were smart meters**

Great Britain, domestic meters operated by large energy suppliers

Q3 2022, millions



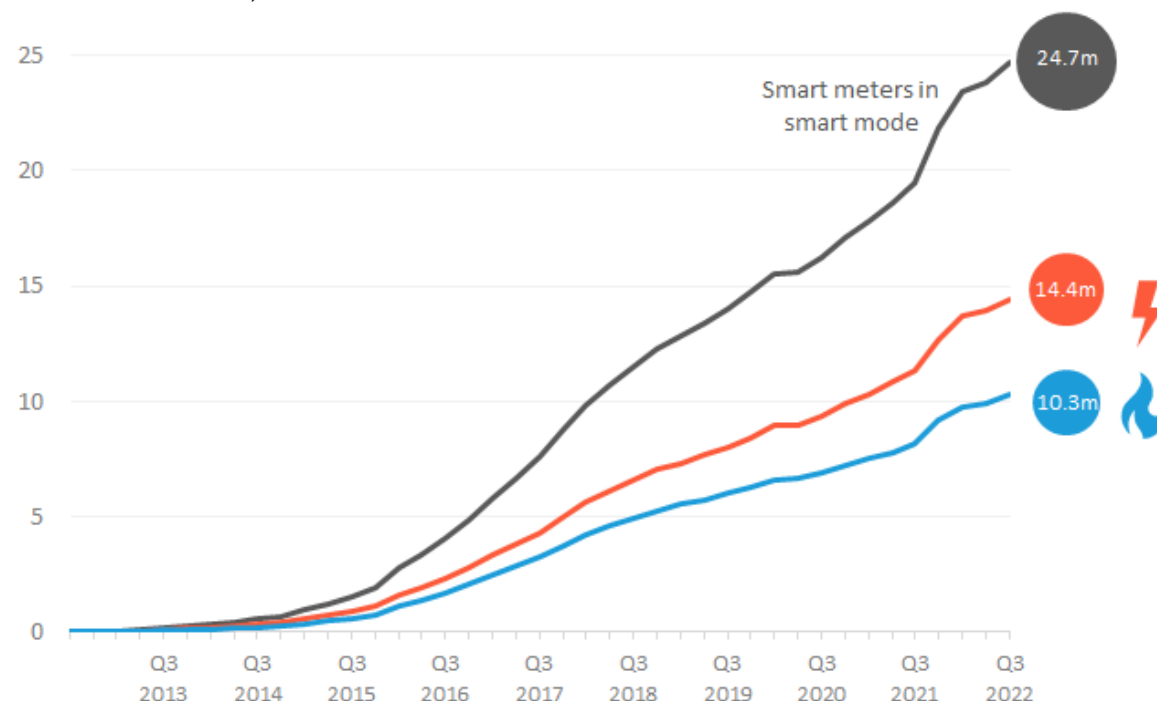
Source: Energy Suppliers reporting to BEIS.

At the end of September 2022, 47% of all domestic meters operated by large energy suppliers were smart in smart mode (43% for gas and 50% for electricity). When including smart meters in traditional mode, this rises to 51% for gas, 56% for electricity and 54% overall. The number of smart meters operating in smart mode increased from the previous quarter by 4%, as shown in Figure 2. The latest figures show that 24.7 million domestic smart meters in smart mode are operated by large suppliers, 58% of these are electricity meters, which is consistent across the time series.

**Figure 2: Domestic smart meters operating in smart mode increased to 24.7 million at the end of September 2022**

Great Britain, domestic smart meters operated in smart mode by large energy suppliers

Q3 2012 to Q3 2022, millions



Source: Energy Suppliers reporting to BEIS.

At the end of 2021, small energy suppliers operated 488,900 domestic meters (less than one percent of all domestic meters), of which 136,800 smart meters were operating in smart mode, with a further 56,900 in traditional mode. This is considerably less than previous years due to the number of small suppliers exiting the market during 2021. Collectively across all energy suppliers, there were 28.6 million domestic smart meters (including those in smart or traditional mode) in Great Britain at the end of Q3 2022; 54% of all domestic meters.

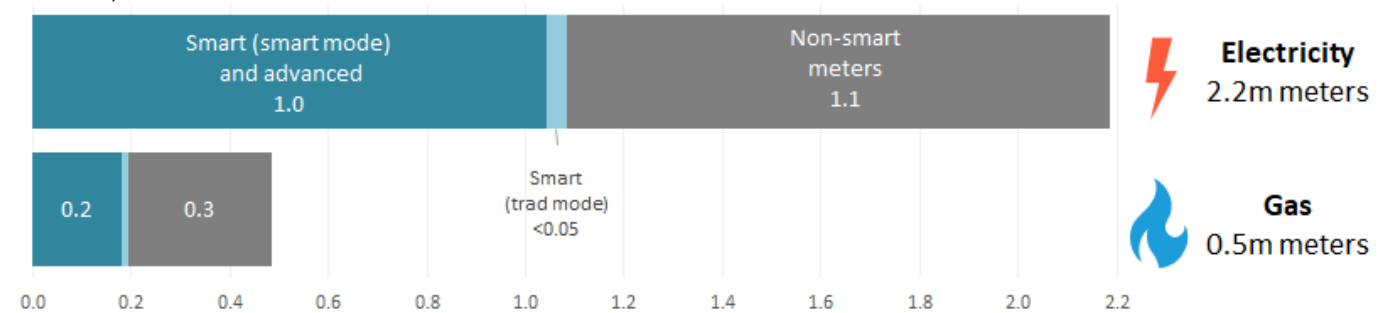
## Operational meters in smaller non-domestic sites

At the end of September 2022, there were 1.2 million smart meters operating in smart mode or advanced meters representing 46% of all non-domestic meters in operation by large suppliers (Figure 3). A greater proportion of electricity meters are operating in smart mode or are advanced meters compared to gas meters (48% versus 37%). When including smart meters in traditional mode, these percentages are relatively unchanged since few non-domestic meters are smart meters in traditional mode (electricity 50%, gas 40% and overall, 48%).

### Figure 3: Forty-eight percent of non-domestic meters operating are smart or advanced meters

Great Britain, non-domestic meters operated by large energy suppliers

Q3 2022, millions



Source: Energy Suppliers reporting to BEIS.

At the end of 2021, small energy suppliers operated 760,900 non-domestic meters (23% of all non-domestic meters), of which 445,200 were smart meters operating in smart mode and advanced meters. An additional 9,800 were smart meters operating in traditional mode. Collectively, across both large and small energy suppliers, at the end of Q3 2022 there were 1.7 million smart meters in smart mode and advanced meters across small non-domestic sites in Great Britain; 49% of all meters in smaller non-domestic sites (51% when including smart meters in traditional mode).

# Meters installed

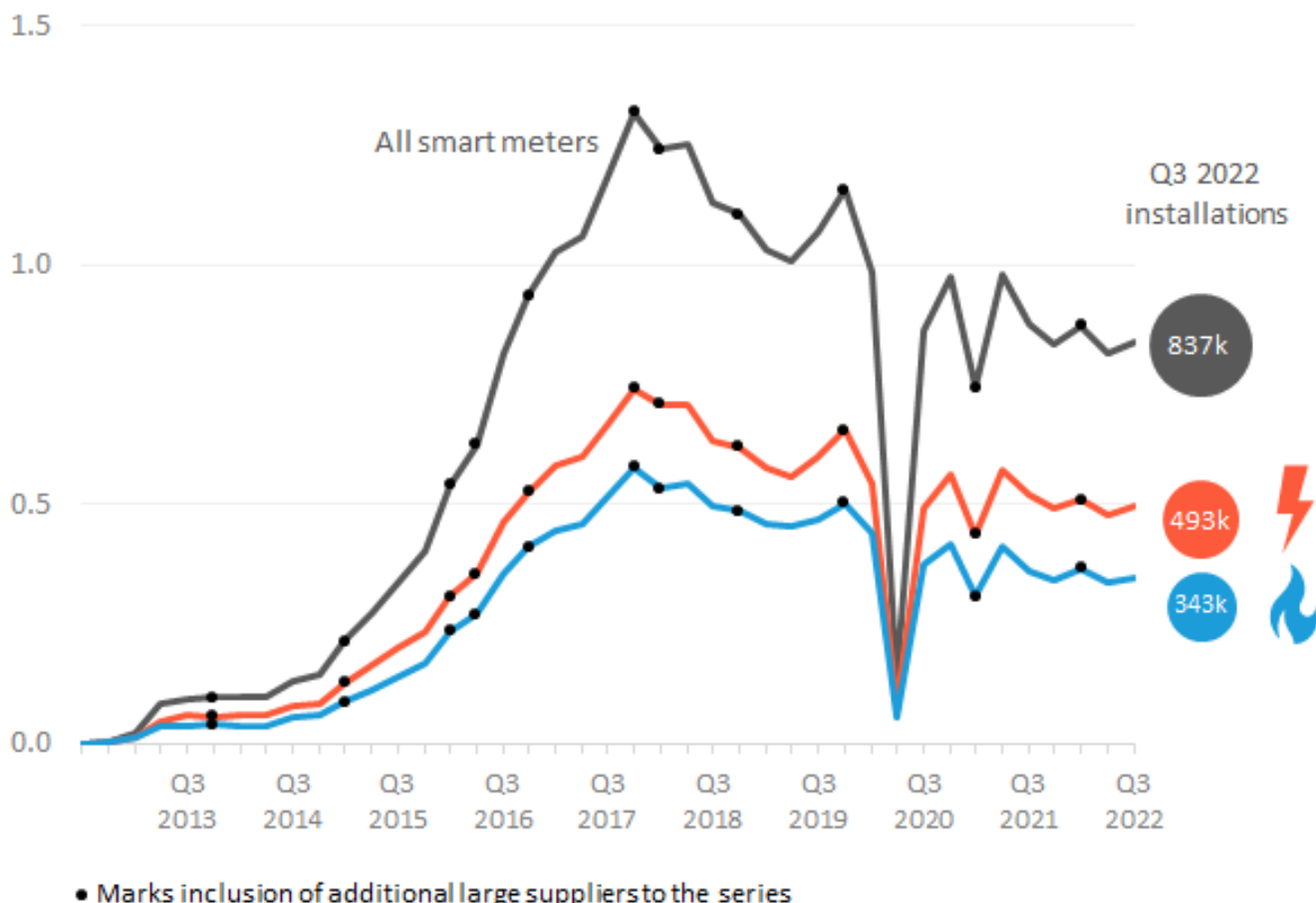
In the data tables accompanying this publication, Table 2 shows a quarterly breakdown of domestic meters installed by large suppliers, Table 4 shows the non-domestic installations by large suppliers and Table 6 gives the annual installation data for both large and small suppliers. All tables show the split by fuel and meter type.

## Meters installed in domestic properties

Quarterly installation activity in domestic properties by large energy suppliers over the course of the Smart Metering Implementation Programme is shown in Figure 4. In the third quarter of 2022, **836,800** smart meters were installed by large energy suppliers. This is a three percent increase in smart meter installations compared to the previous quarter; and a five percent decrease on the same quarter last year in part due to fewer working days.

**Figure 4: Domestic installations by large energy suppliers increased by three percent from Q2 2022 levels**

Great Britain, domestic meters installed by large energy suppliers  
 Q3 2012 to Q3 2022, millions



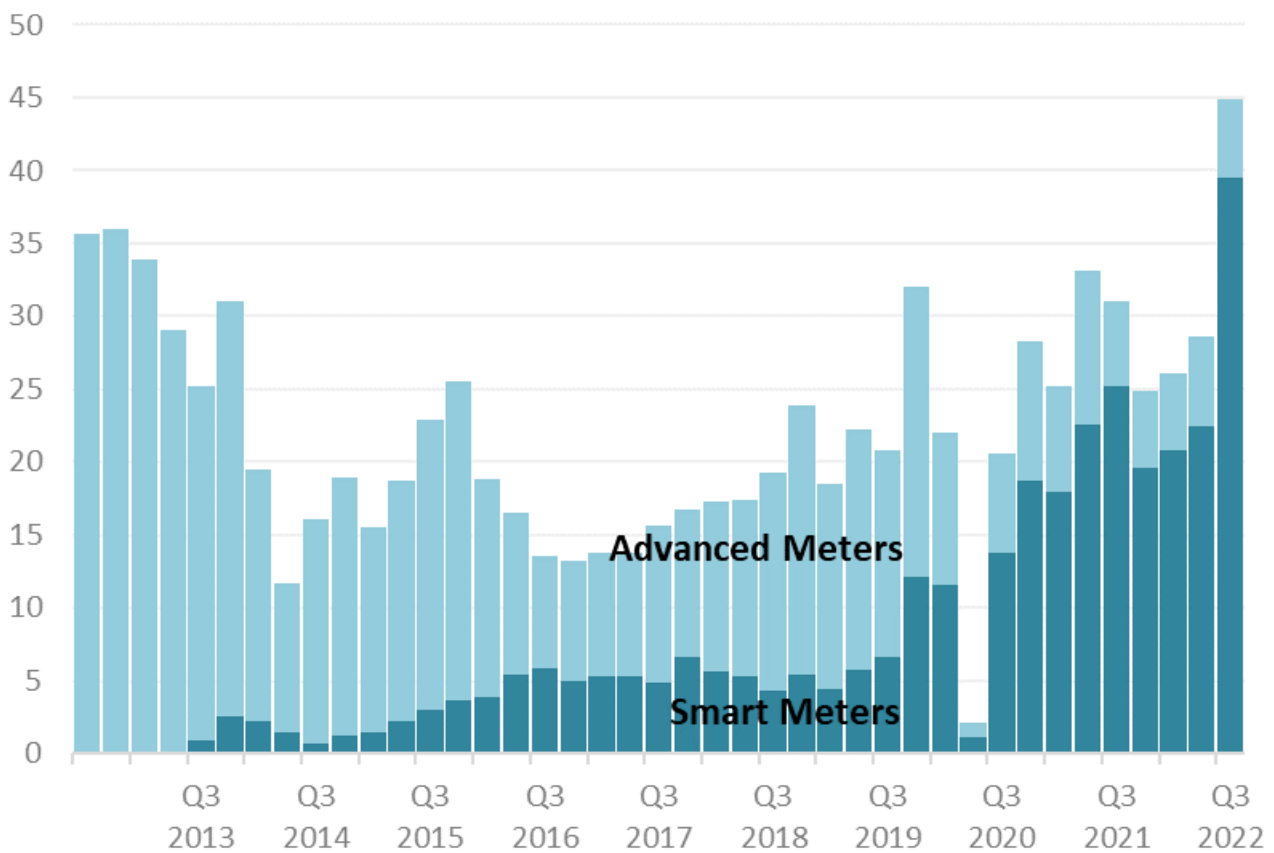
Source: Energy Suppliers reporting to BEIS.

## Meters installed in smaller non-domestic properties

Quarterly installation activity by large energy suppliers in the non-domestic sites is shown in Figure 5. There were **44,900** smart and advanced meters installed in smaller non-domestic sites by large energy suppliers during Q3 2022, an increase of 57% on the previous quarter and the highest on record. This was entirely a result of an increase in smart meters installations rather than advanced installations. Most non-domestic installations continue to be smart meters; Figure 5 shows this increased to 88% during Q3 2022 from a consistent quarterly proportion of around 80% since Q3 2021.

**Figure 5: Smart meter installations at non-domestic sites increased to a record high during Q3 2022**

**Great Britain, non-domestic meters installed by large suppliers**  
Q3 2012 to Q3 2022, thousands



Source: Energy Suppliers reporting to BEIS.



# Accompanying tables

The following tables are available in two formats<sup>3</sup> on the GOV.UK website  
<https://www.gov.uk/government/collections/smart-meters-statistics>:

## Quarterly – Large Supplier Data

- 1 Quarterly domestic meters operated by large suppliers
- 2 Quarterly domestic smart meters installed by large energy suppliers
- 3 Quarterly non-domestic meters operated by large energy suppliers
- 4 Quarterly non-domestic smart and advanced meters installed by large energy suppliers

## Annual – Large and Small Supplier Data

- 5 Annual meters operated by large and small energy suppliers
- 6 Annual smart and advanced meters installed by large and small energy suppliers

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<sup>3</sup> Excel (.xlsx) and Open Document Spreadsheet (.ods)

## Technical information

Large energy suppliers report data covering calendar quarters. The data provided is taken as a snapshot on the last calendar day of the reporting quarter. BEIS receive this data one calendar month from the end of the reporting quarter. The total meters covered in the quarterly data varies due to customers switching between large and small suppliers, who report data to BEIS on an annual basis. Similar to large suppliers, small suppliers provide data as reported on the last calendar day of the year and deliver to BEIS one month from the end of the calendar year. All data undergoes quality assurance before being combined to provide an industry-level estimate, protecting commercial sensitivity. The data used in this report includes the number of meters installed in each reporting period, while the number of meters in operation is provided as at the last day of each reporting period.

The first statistical report on the Smart Meter roll-out was published in Q2 2013 for large energy suppliers. Subsequent reports are published on a quarterly basis. Annual small supplier data was published alongside large supplier data for the first time for Q4 2015. Prior to this, data received from many of the small suppliers did not meet the quality standards required for publication.

Energy supplier data is cross-checked against external administrative data sources such as ElectraLink, DCC and Xoserve. In previous publications, these data sources have also been used, where necessary, to estimate installation activity and meters operating for suppliers who have exited the market. In addition to market exits, supplier transitions to large supplier reporting have also occurred in this publication series, these have been documented in Table 2.

**Table 2: Suppliers transitioning to large supplier classification**

Supplier	Added	Removed	Detailed information (where applicable)
<b>Utility Warehouse</b>	Q4 2013		
<b>Shell Energy Retail</b>	Q1 2015		Previously known as First Utility
<b>OVO</b>	Q1 2015		
<b>Utilita</b>	Q1 2016		
<b>Extra Energy</b>	Q2 2016	Q4 2017	Transitioned to small supplier classification
<b>Co-operative Energy</b>	Q4 2016	Q4 2019	Bought by Octopus Energy in 2019
<b>Economy Energy</b>	Q4 2017	Q1 2019	Ceased trading, customers transitioned to OVO Energy
<b>Just Energy (previously Hudson Green Star)</b>	Q4 2017	Q4 2020 Q4 2021	Domestic business bought by Shell Energy Retail Q4 2020 Non-domestic Shell Energy UK transitioned to small supplier group
<b>Bulb</b>	Q1 2018		
<b>Octopus Energy</b>	Q4 2018		
<b>Avro Energy</b>	Q4 2019	Q3 2021	Ceased trading, customers transitioned to Octopus Energy
<b>Green Network Energy</b>	Q4 2019	Q1 2021	Ceased trading, customers transitioned to EDF
<b>Opus Energy</b>	Q4 2019		
<b>People's Energy</b>	Q4 2020 <sup>4</sup>	Q3 2021	Ceased trading, customers transitioned to British Gas
<b>nPower</b>		Q4 2020	Combined reporting with E.ON, following merger in 2019
<b>E</b>	Q4 2021 <sup>5</sup>		
<b>So Energy</b>	Q4 2021 <sup>5</sup>		Includes ESB

<sup>4</sup> Meters installed included in the large supplier group from the subsequent quarter

Before Q1 2016, meters installed under the mandate by energy suppliers before they transitioned to large suppliers were included within the historic installation 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 Q4 2015, this was no longer needed. Historic installation totals for transitioning suppliers remain in the small supplier totals reported on at the end of the previous calendar year.

From Q1 2022, statistics presented in this report and accompanying tables include SMETS2 meter installations and advanced (for non-domestic sites) only. This is in line with the [Post 2020 Smart Meter Implementation Framework](#) guidance, which came into effect on 1 January 2022. SMETS1 meter installations that occurred before the start of the new framework will continue to be reported in the historical time series (pre-2022).

## Energy Suppliers included in this report

### 14 Large Energy Suppliers:

British Gas	Octopus Energy	So Energy (includes ESB)
Bulb	Opus Energy	SSE Energy Solutions
E	OVO	Utilita
E.ON Next	Scottish Power	Utility Warehouse
EDF Energy	Shell Energy Retail	

### 62 Small Energy suppliers at the end of 2021:

Ampower	ENGIE	National Gas	Switch Business
Avanti Gas	Enstroga	Neon Reef	Gas
BES Utilities	Entice Energy	Northumbria Energy	and Power
BlueGreen Energy	Foxglove Energy	Omni Energy	TruEnergy
BPG Energy	Gazprom	Opal Gas	UK Gas Supply
Brook Green Supply	Good Energy	Orbit Energy	Utility Point
Bryt Energy	GOTO Energy	Pozitive Energy	United Gas &
Corona Energy	Green Energy	PFP Energy	Power
CNG	Green Supplier Limited	Pure Planet	Valda Energy
Colorado	Hub Energy	Regent Gas	Verastar
Crown Gas & Power	Igloo Energy	Shell Energy UK	Xcel Energy
D-ENERGi	Logicor Energy	Smartest Energy	Yorkshire Gas &
Daligas	MA Energy	Smartest Energy Business	Power
Delta Gas & Power	Marble Power	Symbio Energy	Yü Energy
Drax Energy	Maxen Power	Total Energies	Zebra Power
Dyce Energy	MB Energy	Social Energy	
Ecotricity	MoneyPlus Energy	Squeaky Clean Energy	

# Definitions

<b>Advanced meters</b>	Advanced meters must, at minimum, be able to store half-hourly electricity and hourly gas data, to which the non-domestic customer has timely access and the supplier has remote access
<b>DCC</b>	Data Communications Company (DCC) - the holder of the Smart Meter communication licence, Smart DCC Ltd. The DCC Licence was awarded under section 7AB of the Gas Act 1986, and section 5 of the Electricity Act, each allowing Smart DCC Ltd to undertake the activity of providing a Smart Meter communication service.
<b>Domestic properties</b>	Properties where the customer is supplied with electricity or gas, wholly or mainly for domestic purposes
<b>IHD</b>	In-Home Display (IHD) - an electronic device paired to the Smart Metering System, which provides near real-time information on a consumer's energy consumption
<b>Large energy suppliers</b>	<p><u>From 2022</u> Supply gas and/or electricity to at least 150,000 metering points irrespective of domestic/non-domestic market</p> <p><u>Pre-2022</u> Supplying either gas or electricity to at least 250,000 metering points. An energy supplier need only supply 250,000 domestic or non-domestic customers a single fuel to be classed as a large energy supplier (e.g. an energy supplier supplying gas to 250,000 domestic customers and no electricity or non-domestic customers is a large energy supplier). Note that up to Q3 2019, large suppliers were defined by domestic customers only.</p>
<b>Non-smart meters</b>	All meters which are not smart (or advanced for non-domestic) meters
<b>Ofgem</b>	Office of Gas and Electricity Markets (Ofgem) - the Government regulator for the electricity and downstream natural gas markets in Great Britain
<b>Small energy suppliers</b>	<p><u>From 2022</u> Supply gas and/or electricity to less than 150,000 metering points irrespective of domestic/non-domestic market</p> <p><u>Pre-2022</u> Supplying either gas or electricity to less than 250,000 metering points.</p>
<b>Smaller non-domestic sites</b>	Business or public sector customers whose sites use low to medium amounts of electricity (Balancing and Settlement Code Profile Classes 1, 2, 3 or 4) or gas (using less than 732MWh of gas per annum)
<b>Smart meter</b>	The definition of a qualifying meter can be found in 39A.3 and 33A.3 of the electricity and gas supply licence conditions respectively ( <a href="https://www.ofgem.gov.uk/industry-licensing/licences-and-licence-conditions">https://www.ofgem.gov.uk/industry-licensing/licences-and-licence-conditions</a> )
<b>SMETS1</b>	Smart Metering Equipment Technical Specification version 1 (SMETS1) - the first version of the Smart Metering Equipment Technical Specification which was designated by the Secretary of State
<b>SMETS2</b>	Smart Metering Equipment Technical Specification version 2 (SMETS2) - the second version of the Smart Metering Equipment Technical Specification which was designated by the Secretary of State

## Further information

### Future updates to these statistics

The next quarterly publication is planned for publication on 21 March 2023. 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. The format and context may be subject to change in future versions.

### Related statistics

Further information can be found on the [BEIS' statistics](#) webpage.

The figures within this publication series represent a large sub-set of meters found in other Departmental consumption statistics.

### Sub-national gas and electricity consumption statistics

This publication provides estimates of [annual electricity and gas consumption](#) below national level. Latest estimates are for 2020 covering UK, the data for 2021 is due to be published in December 2022.

### Digest of UK Energy Statistics (DUKES)

[DUKES](#) contains annual data on production and consumption of overall energy and of the individual fuels in the United Kingdom. It also includes a commentary covering all the major aspects of energy and gives a comprehensive picture of energy production and use over the last five years with key series back to 1970.

### National Energy Efficiency Data-Framework (NEED)

[The National Energy Efficiency Data-Framework \(NEED\)](#) was set up to provide a better understanding of energy use and energy efficiency in domestic and non-domestic buildings in Great Britain. The data framework matches gas and electricity consumption data, collected for BEIS sub-national energy consumption statistics, with information on energy efficiency measures installed in homes, from the Homes Energy Efficiency Database (HEED), Green Deal, the Energy Company Obligation (ECO) and the Feed-in Tariff (FIT) scheme. It also includes data about property attributes and household characteristics, obtained from a range of sources.

### Revisions policy

The [BEIS statistical revisions policy](#) sets out the revisions policy for these statistics, which has been developed in accordance with the UK Statistics Authority [Code of Practice for Statistics](#).

## Uses of these statistics

The data associated with this release is used in internal analysis to help form policy decisions and is also used by industry to monitor trends in the roll-out. The data within and associated with this publication are also used to answer Parliamentary questions and Freedom of Information requests.

## User engagement

Users are encouraged to provide comments and feedback on how these statistics are used and how well they meet user needs. Comments on any issues relating to this statistical release are welcomed and should be sent to: [smartmeter.stats@beis.gov.uk](mailto:smartmeter.stats@beis.gov.uk)

The BEIS statement on [statistical public engagement and data standards](#) sets out the department's commitments on public engagement and data standards as outlined by the [Code of Practice for Statistics](#).

## Pre-release access to statistics

Some ministers and officials receive access to these statistics up to 24 hours before release. Details of the arrangements for doing this and a list of the ministers and officials that receive pre-release access to these statistics can be found in the [BEIS statement of compliance](#) with the Pre-Release Access to Official Statistics Order 2008.

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