Smart Meter Statistics in Great Britain: Quarterly Report to end September 2024
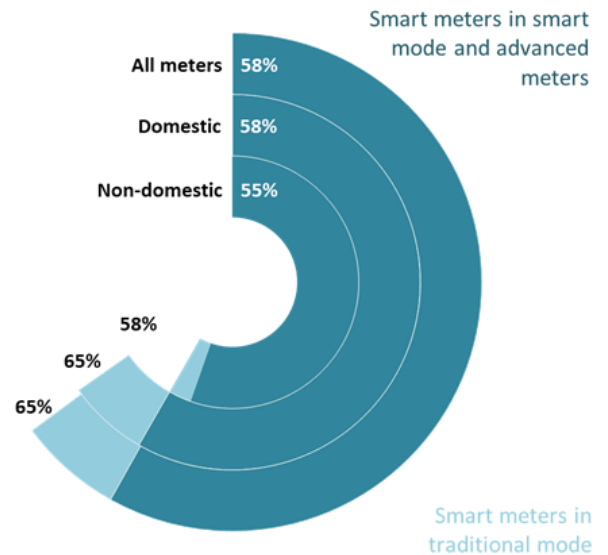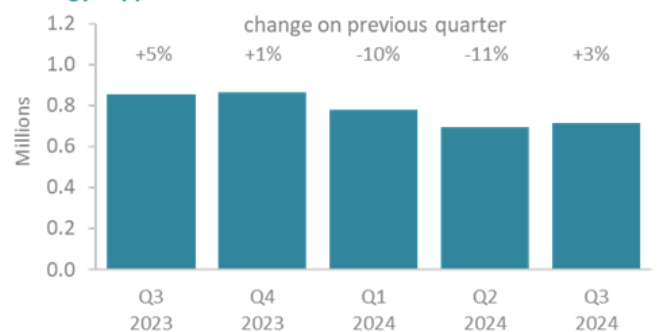
Official Statistics

This report includes an update from all large energy suppliers in the energy market in Great Britain at the end of Q3 2024, with data from small suppliers up to end 2023

At the end of September 2024, **37 million** smart and advanced meters were in homes and small businesses across Great Britain; **65%** of all meters are now smart or advanced meters

During Q3 2024, a total of **710,000** smart and advanced meters were installed by large energy suppliers across Great Britain; a 2.9% increase on the previous quarter and a 16% decrease on the same quarter in 2023

Smart meters in smart mode and advanced meters

All meters	58%
Domestic	58%
Non-domestic	55%

58%
65%
65%

Smart meters in traditional mode

Quarterly smart and advanced meter installations by large energy suppliers

change on previous quarter

	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Q3 2024
	+5%	+1%	-10%	-11%	+3%

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 2024, as well as the total number of meters operating on 30 September 2024. The report also includes annual information for small suppliers to the end of 2023.

Contents

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 2024 by large energy suppliers, as well as the total number of meters they operated on 30 September 2024. This release also includes small suppliers' installation activity during 2023 and meters operated at the end of 2023.

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 Energy Security & Net Zero, regulated by the Office of Gas and Electricity Markets (Ofgem), and delivered by energy suppliers.

In 2012, ahead of the national smart metering communications infrastructure being in place, the Government defined a standard, known as SMETS1 (Smart Metering Equipment Technical Specification version 1), 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.

The majority of SMETS1 meters have 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 (Smart Metering Equipment Technical Specification version 2) meters are connected to the DCC's network from the point of installation, so are already compatible between energy suppliers.

The next quarterly release is planned for publication on 20 March 2025.

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, Table 5 shows annual data on meters in operation, for both large and small suppliers. All accompanying tables show unrounded statistics split by fuel and meter type[1]

At the end of September 2024, there were 37 million smart and advanced meters in homes and small businesses across Great Britain[2] (Table 1). Of these, 33 million were either smart meters operating in smart mode or advanced meters (90%), with the remaining 10% smart meters operating in traditional mode; effectively unchanged from the proportion at the end of Q2 2024[3]. Overall, of all meters in operation, 65% were smart or advanced meters.

Table 1: Thirty-seven million smart and advanced meters were operating at end of September 2024

Great Britain, to end Q3 2024

		Large Suppliers[4] (end Q3 2024)	Small Suppliers	Total[3]
Smart (smart mode) and advanced meters	Domestic meters	31,131,000	248,000	**33,161,000**
	Non-domestic meters	1,195,000	587,000	
Smart (traditional mode)	Domestic meters	3,703,000	53,000	**3,848,000**
	Non-domestic meters	70,000	22,000	
Total		**36,099,000**	**910,000**	**37,009,000**

Source: Energy Suppliers reporting to Department for Energy Security & Net Zero.

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,
- installed meters yet to be commissioned (e.g., in new build premises).

Operational meters in domestic properties

As of 30 September 2024, large energy suppliers in Great Britain operated 24 million gas meters and 29 million electricity meters in domestic properties across Great Britain. Figure 1 shows detail on the breakdown by different meter and fuel types.

---

[1] Commentary presented in this report shows volumes rounded to two significant figures; percentages are also rounded on the same basis; however, they are calculated using unrounded statistics found in the data tables.
[2] See Technical Information section for information on how data for energy suppliers is collated.
[3] The Q2 2024 statistics have been revised in this release due to updated energy supplier data. This resulted in an increase in the number of smart meters operating in traditional mode (0.74 percentage point increase). Further details on why revisions to the time series can occur can be found in the Technical Information.
[4] Note, statistics presented are independently rounded. This means the sum of their components may differ from the totals.

Figure 1: Sixty-five per cent of domestic meters were smart meters

Great Britain, domestic meters operated by large energy suppliers
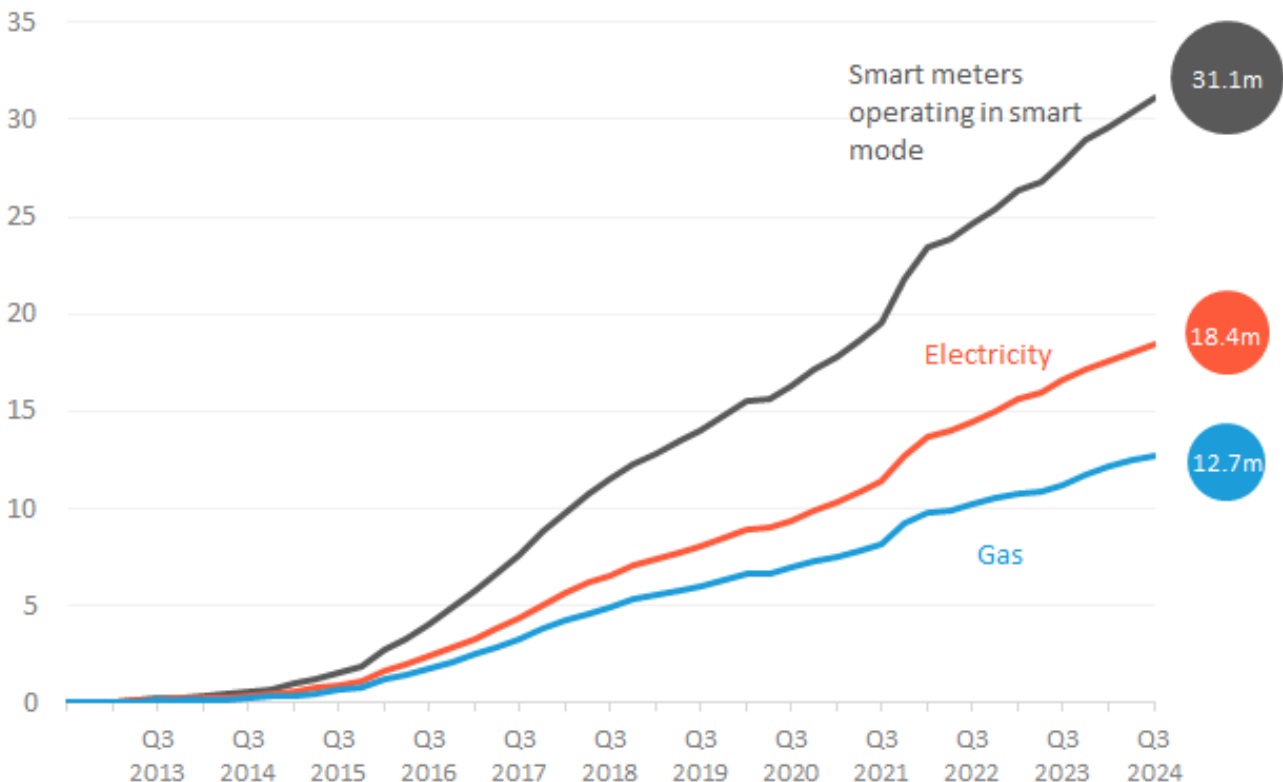End Q3 2024, millions
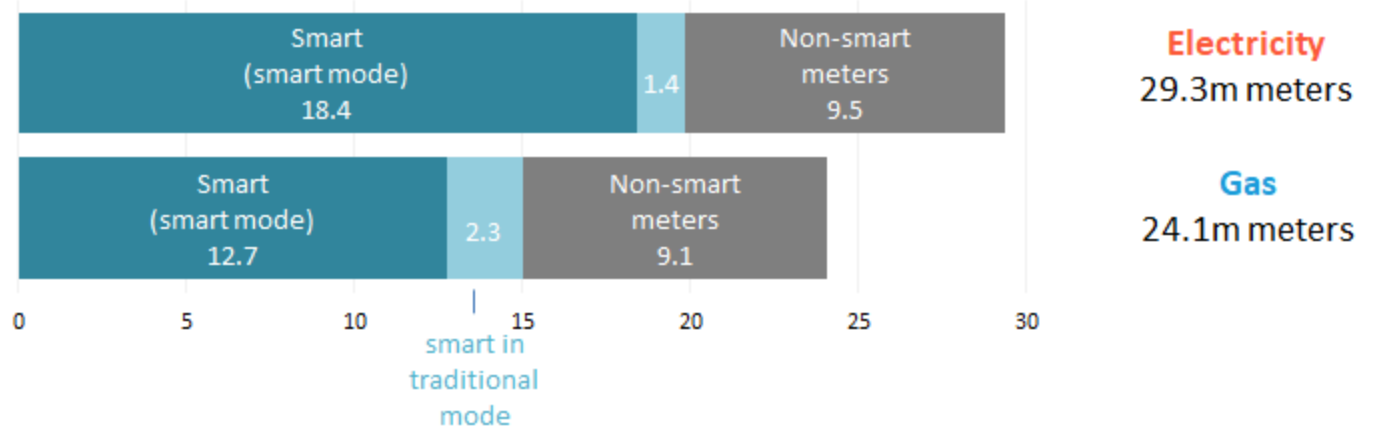
Source: Energy Suppliers reporting to Department for Energy Security & Net Zero.

At the end of September 2024, 58% of all domestic meters operated by large energy suppliers were smart in smart mode (53% for gas and 63% for electricity). When including smart meters in traditional mode, this rises to 63% for gas, 68% for electricity and 65% overall. The number of smart meters operating in smart mode increased from the Q2 2024 figure by 2.3%, as shown in Figure 2. The latest figures show that over 31 million domestic smart meters in smart mode are operated by large suppliers, 59% of which are electricity meters, consistent across this time series.

Figure 2: Domestic smart meters operating in smart mode increased to over 31 million at the end of September 2024

Great Britain, domestic smart meters operated in smart mode by large energy suppliers
end Q3 2012 to Q3 2024, millions

Source: Energy Suppliers reporting to Department for Energy Security & Net Zero.
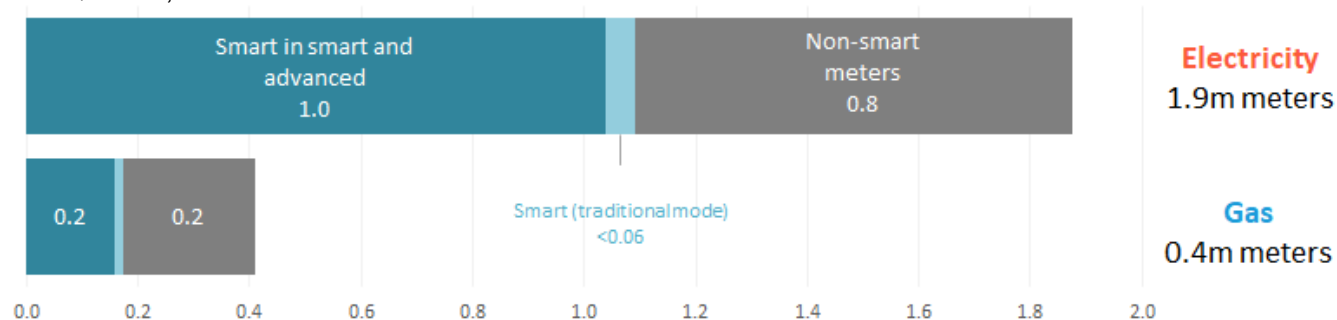
At the end of 2023, small energy suppliers operated 550,000 domestic meters (1.0% of all domestic meters), of which 250,000 smart meters were operating in smart mode, with a further 53,000 in traditional mode. Collectively across all energy suppliers, there were 35 million domestic smart meters (including those in smart or traditional mode) in Great Britain at the end of Q3 2024; 65% of all domestic meters.

Operational meters in smaller non-domestic sites

At the end of September 2024, there were 1.2 million smart meters operating in smart mode or advanced meters representing 52% 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 (55% versus 39%). When including smart meters in traditional mode, these percentages are relatively unchanged since few non-domestic meters are smart meters in traditional mode (electricity 58%, gas 42% and overall, 55%).

Figure 3: Over half of all non-domestic meters are smart meters operating in smart mode or advanced meters

Great Britain, non-domestic meters operated by large energy suppliers
End Q3 2024, millions

Source: Energy Suppliers reporting to Department for Energy Security & Net Zero.

At the end of 2023, small energy suppliers operated 930,000 non-domestic meters (29% of all non-domestic meters), of which 590,000 were smart meters operating in smart mode and advanced meters. An additional 22,000 were smart meters operating in traditional mode. Collectively, across both large and small energy suppliers, at the end of Q3 2024 there were 1.9 million smart and advanced meters across small non-domestic sites in Great Britain; 58% of all meters in smaller non-domestic sites.

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 accompanying tables show unrounded statistics split by fuel and meter type[5]

Meters installed in domestic properties

Quarterly installation activity by large energy suppliers over the course of the smart meter rollout is shown in Figure 4. During Q3 2024, 680,000 smart meters were installed by large energy suppliers representing a 2.6% increase on the previous quarter; with gas meter installations increasing slightly more than electricity meter installations (3.4% versus 2.0%). In comparison to the same reporting period in 2023, installations were 17% lower.

Figure 4: Domestic smart meters installed by large energy suppliers increased by three per cent on Q2 2024

Great Britain, domestic meters installed by large energy suppliers
Q3 2012 to Q3 2024, millions
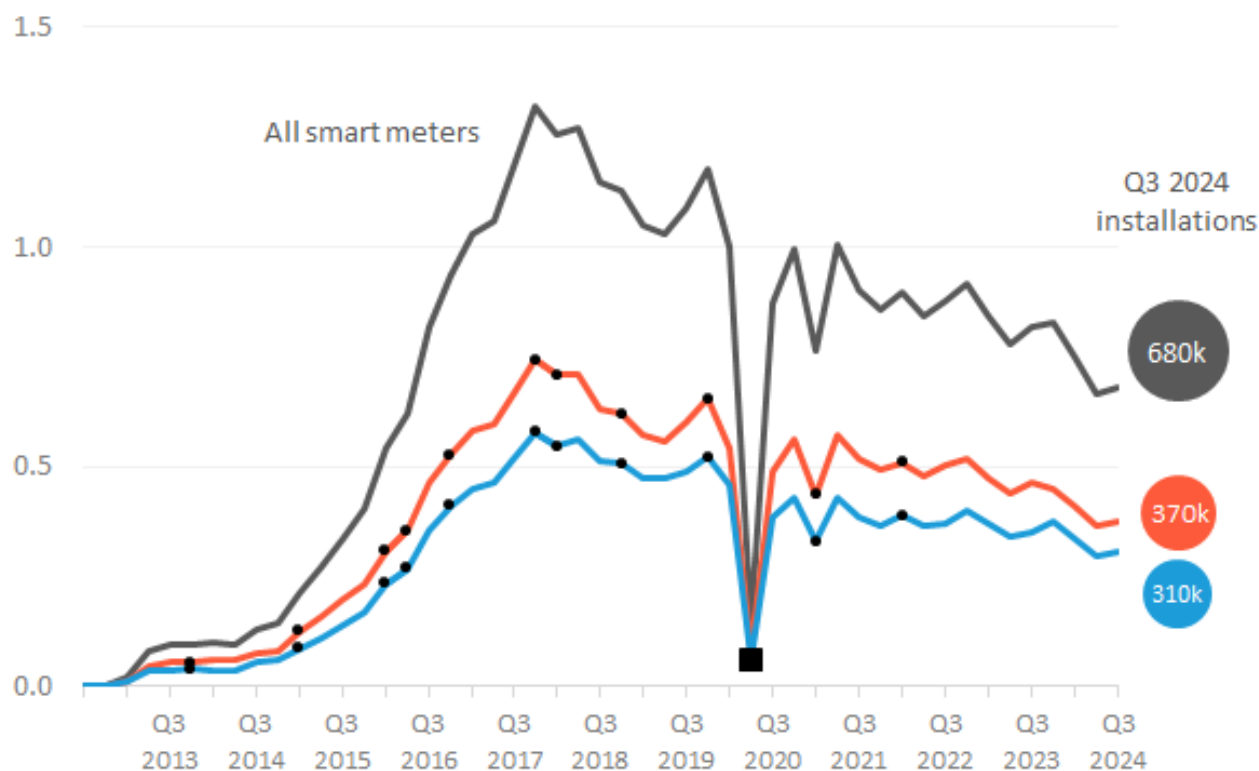
- Marks inclusion of additional large suppliers to the series
- COVID-19 guidance first introduced on 23rd March 2020 leading to energy suppliers focussing on emergency metering work only. Restrictions thereafter varied over time and country within Great Britain

Source: Energy Suppliers reporting to Department for Energy Security & Net Zero.

---

[5] Commentary presented in this report shows volumes rounded to two significant figures; percentages are also rounded on the same basis; however, they are calculated using unrounded statistics found in the data tables.

Meters installed in smaller non-domestic properties

Quarterly installation activity by large energy suppliers in non-domestic sites is shown in Figure 5. In Q3 2024, there were 32,000 smart and advanced meters installed in smaller non-domestic sites by large energy suppliers; a 9.8% increase on Q2 2024; the proportion of smart meters (rather than advanced meter) installations remained high (75%), though lower compared to recent quarters where the proportion has been around 80% or above.

Figure 5: Three quarters of smart/advanced meters installed at non-domestic sites were smart meters

Great Britain, non-domestic meters installed by large suppliers
Q3 2012 to Q3 2024, thousands
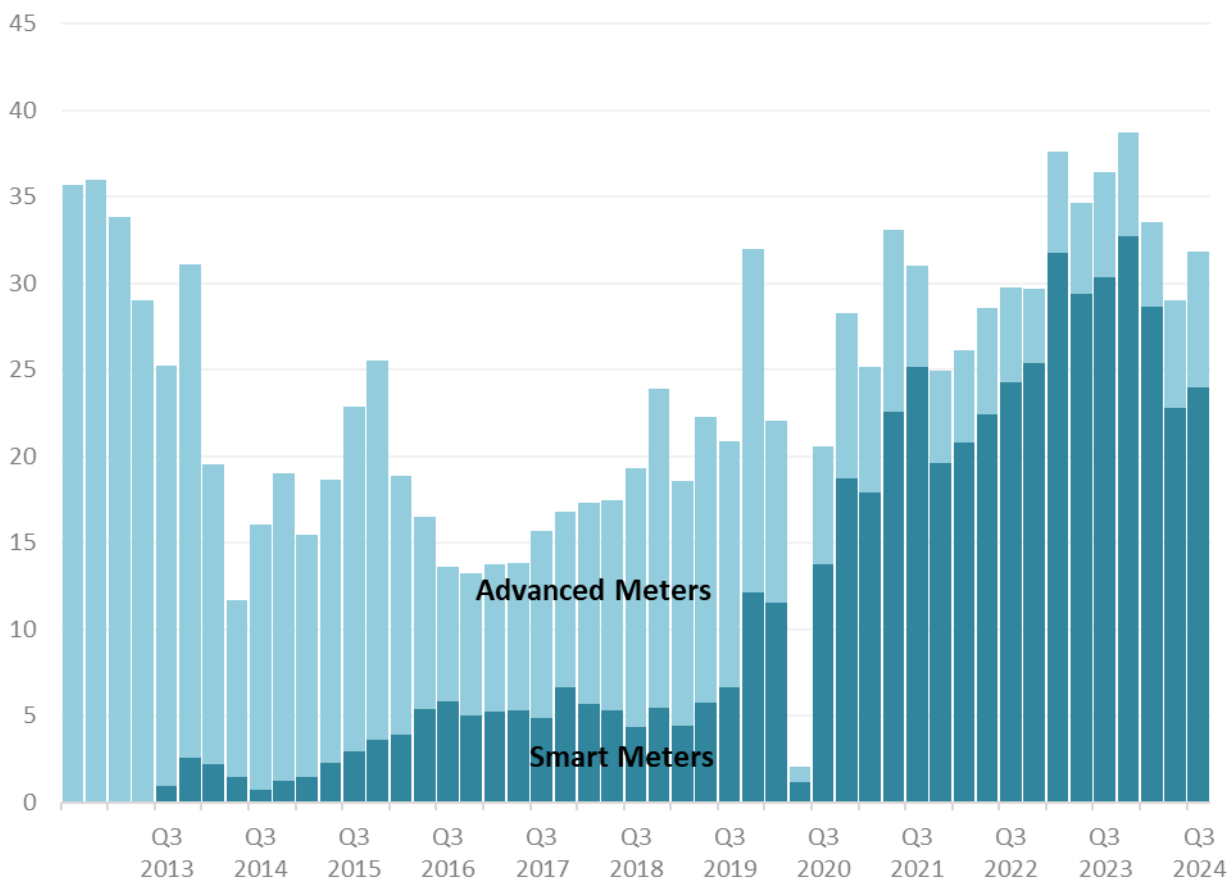
Source: Energy Suppliers reporting to Department for Energy Security & Net Zero.

Accompanying tables

The following tables are available in two formats[6] on the department's statistics website https://www.gov.uk/government/collections/smart-meters-statistics:

<u>Quarterly – Large Supplier Data</u>
1 Number of domestic meters operated by large energy suppliers at end of each quarter, by fuel and meter type.
2 Number of domestic smart meters installed by large energy suppliers during each quarter, by fuel type.
3 Number of non-domestic meters operated by large energy suppliers at end of each quarter, by fuel and meter type.
4 Number of non-domestic smart and advanced meters installed by large energy suppliers during each quarter, by fuel type.

<u>Annual – Large and Small Supplier Data</u>
5 Number of meters operated by large and small energy suppliers at end year point, by fuel and meter type.
6 Number of smart and advanced meters installed by large and small energy suppliers each year, by fuel type.

---

[6] Excel (.xslx) and Open Document Spreadsheet (.ods)

Technical information

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[7]. The data is received by Department for Energy Security & Net Zero one month after the end of each reporting period. It 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 period, while the number of meters in operation is calculated at the end point.

In addition to receiving the latest reporting data from energy suppliers, we continuously work with them to improve the quality of our statistics. Sometimes, for example, after a change in their reporting or management systems, energy suppliers may update past information when it comes to light that previously supplied information was not correct.

Energy supplier data is cross-checked against external administrative data sources such as ElectraLink, DCC and Xoserve. In previous years these data sources have also been used for estimating installation activity and meters in operation for suppliers who have exited the market. A recent example of this was during 2021, when 23 small energy suppliers exited the market between August and December 2021.

Table 3: Suppliers transitioning to large supplier classification[8]

Supplier	Added	Removed	Detailed information (where applicable)
Utility Warehouse	Q4 2013		
Shell Energy Retail	Q1 2015		Previously known as First Utility
OVO	Q1 2015		
Utilita	Q1 2016		
Extra Energy	Q2 2016	Q4 2017	Transitioned to small supplier classification
Co-operative Energy	Q4 2016	Q4 2019	Bought by Octopus Energy in 2019
Economy Energy	Q4 2017	Q1 2019	Ceased trading, customers transitioned to OVO Energy
Just Energy (previously Hudson Green Star)	Q4 2017	Q4 2020	Domestic business bought by Shell Energy Retail Q4 2020.
		Q4 2021	Nondomestic Shell Energy UK transitioned to small supplier group
Bulb	Q1 2018	Q2 2023	Ceased trading, customers transitioned to Octopus Energy
Octopus Energy	Q4 2018		
Avro Energy	Q4 2019	Q3 2021	Ceased trading, customers transitioned to Octopus Energy
Green Network Energy	Q4 2019	Q1 2021	Ceased trading, customers transitioned to EDF
Opus Energy	Q4 2019	Q1 2024	Transitioned to small supplier classification
People's Energy	Q4 2020	Q3 2021	Ceased trading, customers transitioned to British Gas
nPower		Q4 2020	Combined reporting with E.ON, following merger in 2019
E	Q4 2021		
So Energy	Q4 2021		Includes ESB

---

[7] Prior to this, data received from many of the small suppliers did not meet the quality standards required for publication.

[8] In addition to market exits, definition changes to the large supplier classification were made in the Smart Meters Targets Framework at the beginning of 2022 (see Definitions). This meant E. and So Energy transitioned into large energy suppliers.

As part of the methodology for these statistics, energy suppliers who have transitioned to large supplier classification will have their meters in operation moved into the large supplier statistics in the Q4 release. To avoid disclosing individual supplier information, their installation activity is then reported in the following quarter's release (Q1).

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.

Energy Suppliers included in this report

<u>11 Large Energy Suppliers:</u>

British Gas	EDF Energy	Scottish Power	Utilita
E	Octopus Energy	So Energy	Utility Warehouse
E.ON Next	OVO	SSE Energy Solutions	

<u>42 Small Energy suppliers at the end of 2023:</u>

BES Utilities	Outfox the Market (previously	SmartestEnergy
BPG Energy	Foxglove Energy)	SmartestEnergy Business
Brook Green Supply	Fuse Energy	Square1 Energy
Bryt Energy	Good Energy	Squeaky Clean Energy
Corona Energy	100Green (previously Green Energy	Switch Business Gas and Power
Crown Gas & Power	Limited)	Tomato Energy Limited
D-ENERGi	Home Energy	TotalEnergies Gas and Power
Delta Gas & Power	Marble Power	Tru Energy
Dodo Energy	Maxen Power	UK Gas Supply
Drax Energy Solutions Limited	National Gas	Unify Energy
Dyce Energy	Pozitive Energy	United Gas & Power
Ecotricity	Rebel Energy	Valda Energy
ENGIE	Regent Gas	Verastar
Farringdon (previously Champion	SEFE Energy (previously Gazprom)	Yorkshire Gas & Power
Energy)	Shell Energy Business UK	Yü Energy

Definitions

Advanced meters	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.
DCC	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.
Domestic properties	Properties where the customer is supplied with electricity or gas, wholly or mainly for domestic purposes
IHD	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
Large energy suppliers	From 2022 Supply gas and/or electricity to at least 150,000 metering points irrespective of domestic/non-domestic market Pre-2022 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.
Non-smart meters	All meters which are not smart (or advanced for non-domestic) meters
Ofgem	Office of Gas and Electricity Markets (Ofgem) - the Government regulator for the electricity and downstream natural gas markets in Great Britain
Small energy suppliers	From 2022 Supply gas and/or electricity to less than 150,000 metering points irrespective of domestic/non-domestic market Pre-2022 Supplying either gas or electricity to less than 250,000 metering points.
Smaller non-domestic sites	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)
Smart meter	Compliant with the Smart Meter Equipment Technical Specification (SMETS) and has functionality such as being able to transmit meter readings to energy suppliers and receive data remotely
SMETS1	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
SMETS2	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
Smart meters operating in traditional mode	When a smart meter loses smart functionality and needs to be read manually it is in "traditional mode". This can also temporarily happen for other 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, • installed meters yet to be commissioned (e.g., in new build premises).

Further information

Future updates to these statistics

The next quarterly publication is planned for publication on 20 March 2025. 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 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 2022 covering UK, the data for 2023 is due to be published in December 2024 (provisional).

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. 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 Department for Energy Security & Net Zero 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@energysecurity.gov.uk

The Department for Energy Security & Net Zero 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 Department for Energy Security & Net Zero statement of compliance with the Pre-Release Access to Official Statistics Order 2008.

Contact

- Responsible statistician: Mita Kerai
- Email: smartmeter.stats@energysecurity.gov.uk
- Statistical enquiries: 0300 068 5044
- Media enquiries: 020 7215 1000
- General enquiries: smartmetering@energysecurity.gov.uk