

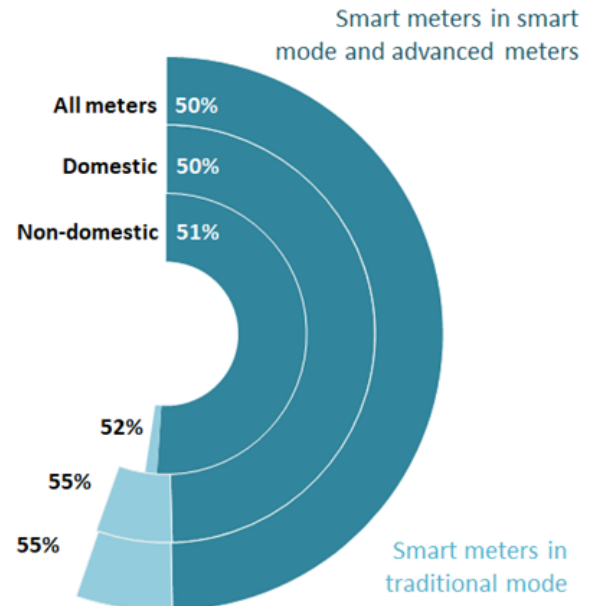
Smart Meter Statistics in Great Britain: Quarterly Report to end December 2022

21 March 2023

Official Statistics

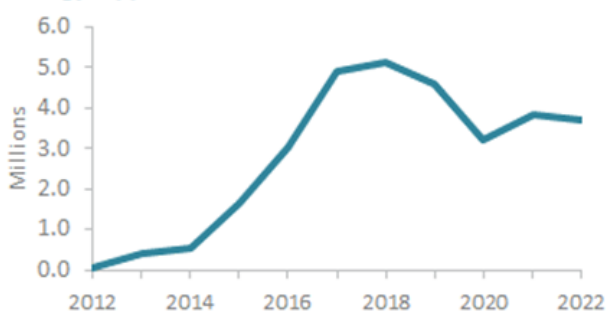
This report includes an update from all energy suppliers in the energy market in Great Britain.

At the end of 2022, **31.3 million** smart and advanced meters were in homes and small businesses across Great Britain; **fifty-five percent** of all meters are now smart or advanced meters, with 28.1 million operating in smart mode.

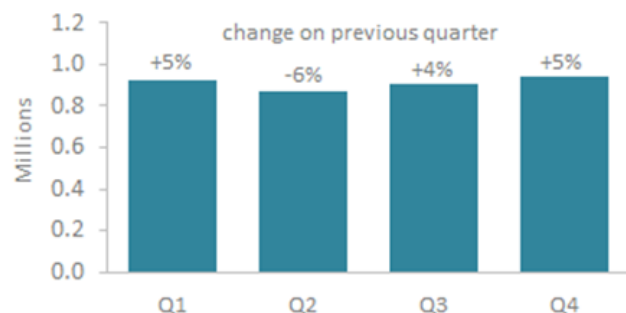


A total of **3.7 million** smart and advanced meters were installed in 2022, a decrease of four per cent on 2021 levels. However, quarterly statistics show that installations carried out by large suppliers have increased quarter on quarter during the second half of 2022.

Annual smart and advanced meter installations by all energy suppliers



2022 quarterly smart and advanced meter installations by large energy suppliers



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 fourth quarter of 2022, as well as the total number of meters operated on 31 December 2022. The report also includes annual information for small suppliers to the end of 2022.

Contents

Introduction	3
Meters in operation	4
Operational meters in domestic properties	5
Operational meters in smaller non-domestic sites	7
Meters installed	7
Meters installed in domestic properties	8
Meters installed in smaller non-domestic properties	8
Accompanying tables	11
Technical information	12
Energy Suppliers included in this report	13
Definitions	14
Further information	15
Future updates to these statistics	15
Related statistics	15
Revisions policy	15
Uses of these statistics	16
User engagement	16
Pre-release access to statistics	16
Contact	16

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 fourth quarter of 2022 by large energy suppliers, as well as the total number of meters they operated on 31 December 2022. This release also includes an annual update on small suppliers' installation activity during 2022 and meters operated at the end of 2022.

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. The majority of SMETS 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.

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 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 25 May 2023.

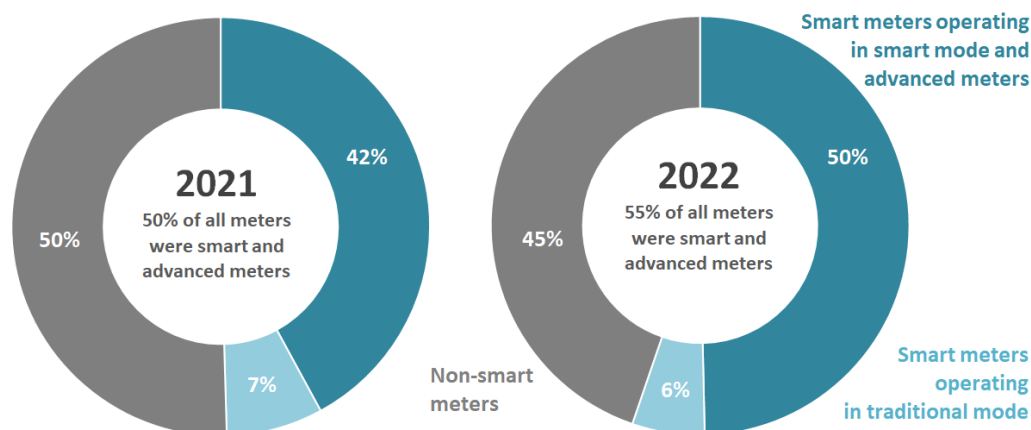
Meters in operation

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 2022, there were **31.3 million** smart and advanced meters in Great Britain in homes and small businesses.^{1,2} Of these, **28.1 million** were smart meters operating in smart mode or advanced meters, an increase of 4.6 million from the end of 2021; similar to the increase seen between the end of 2020 and 2021. This now means that **50%** of all meters were smart in smart mode or advanced meters, with a further 5.6% of meters being smart meters in traditional mode.³ In total, at the end of 2022, 55% of meters operating were smart, an increase of six percentage points from the end of 2021 (Figure 1). Of the 31.3 million smart and advanced meters, 15.1 million are SMETS1, 14.8 million SMETS2 and 1.3 million advanced meters.

Figure 1: More than half of all meters in operation are smart and advanced meters at the end of 2022

Great Britain, meters operated by all energy suppliers
End 2021 and end 2022



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

Table 1 summarises how the total smart meters in operation at the end of 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 31.3 million smart and advanced meters operating at end of 2022
Great Britain, to end 2022

	Large Suppliers	Small Suppliers	Total ³
Smart (smart mode) and advanced meters	Domestic meters	221,000	28,138,000
	Non-domestic meters	487,000	
Smart (traditional mode)	Domestic meters	21,000	3,180,000
	Non-domestic meters	11,000	
Total	30,578,000	740,000	31,318,000

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

¹ This includes updated data from both large and small suppliers to the end of the year.

² See [Technical Information](#) section for information on how data for energy suppliers is collated.

³ Note, statistics presented are independently rounded. This means the sum of their components may differ from the totals.

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 to restore smart services. As at 11 March 2023 there were 10.5 million SMETS 1 meters connected to the network.⁴

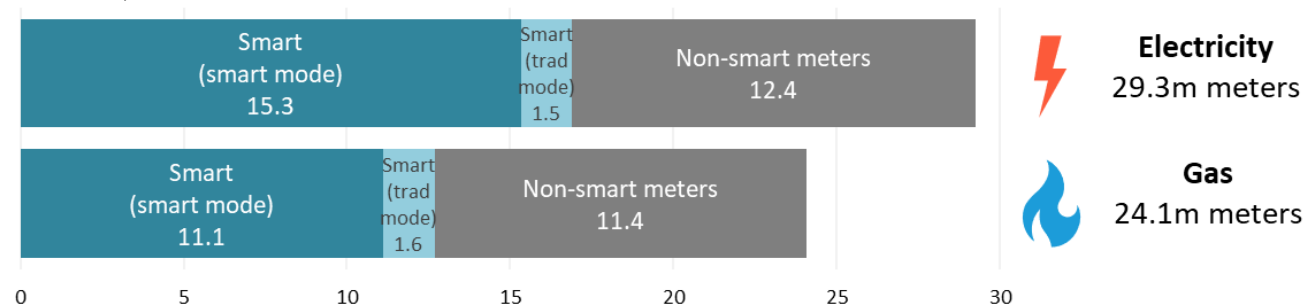
Operational meters in domestic properties

Collectively across both large and small energy suppliers, there were 29.6 million smart meters in domestic properties in Great Britain at the end of 2022; 55% of all domestic meters. Of all domestic meters operating at the end of 2022, half were smart meters operating in smart mode (Figure 2).

Figure 2: Half of all domestic meters were smart meters operating in smart mode

Great Britain, domestic meters operated by all energy suppliers

End 2022, millions



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

Table 2 shows of all smart meters operating 13% were in prepayment mode at the end of 2022, broadly in line with the levels of prepayment meters in the market (14%) and consistent with previous years.

Table 2: Thirteen per cent of smart meters are in prepayment mode, in line with prepayment meters in the domestic market

Great Britain, end 2019 to end 2022

	PPM coverage in the domestic market	
	all domestic	smart meters only
2019	15%	19%
2020	14%	14%
2021	14%	13%
2022	14%	13%

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

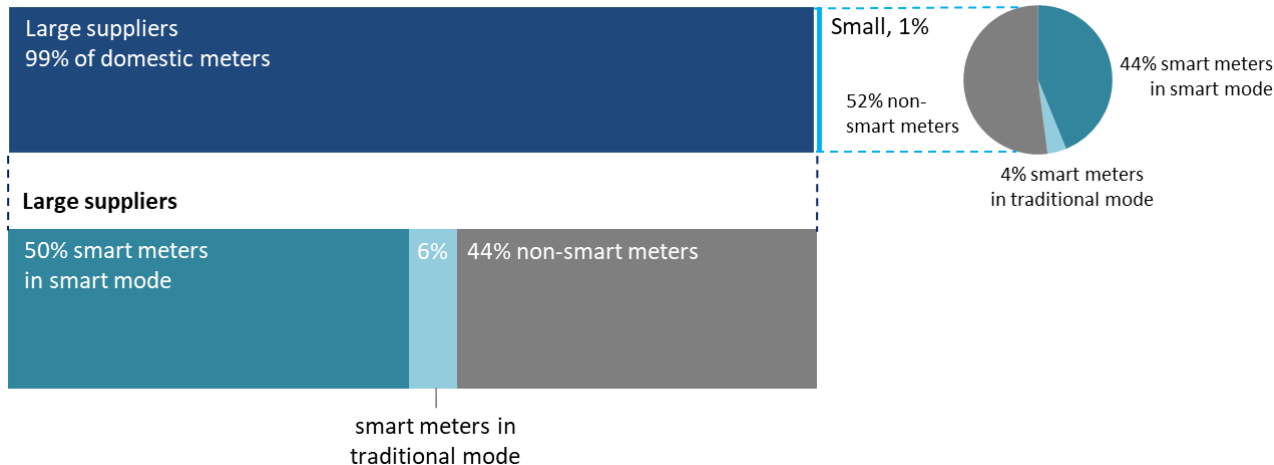
Figure 3 illustrates that large energy suppliers continue to operate 99% of domestic meters at the end of 2022, over half (56%) of which were smart meters. Of these smart meters operated by large suppliers, 89% were operated in smart mode, an increase of five percentage points since the end of 2021. Although small suppliers operate a very small proportion of the

⁴ <https://www.smartdcc.co.uk/>

domestic market, a slightly larger proportion of their smart meters were operating in smart mode (91%). This is a substantial increase of 21 percentage points since the end of 2021.

Figure 3: Ninety-nine per cent of domestic meters are operated by large suppliers

Great Britain, domestic meters
End 2022

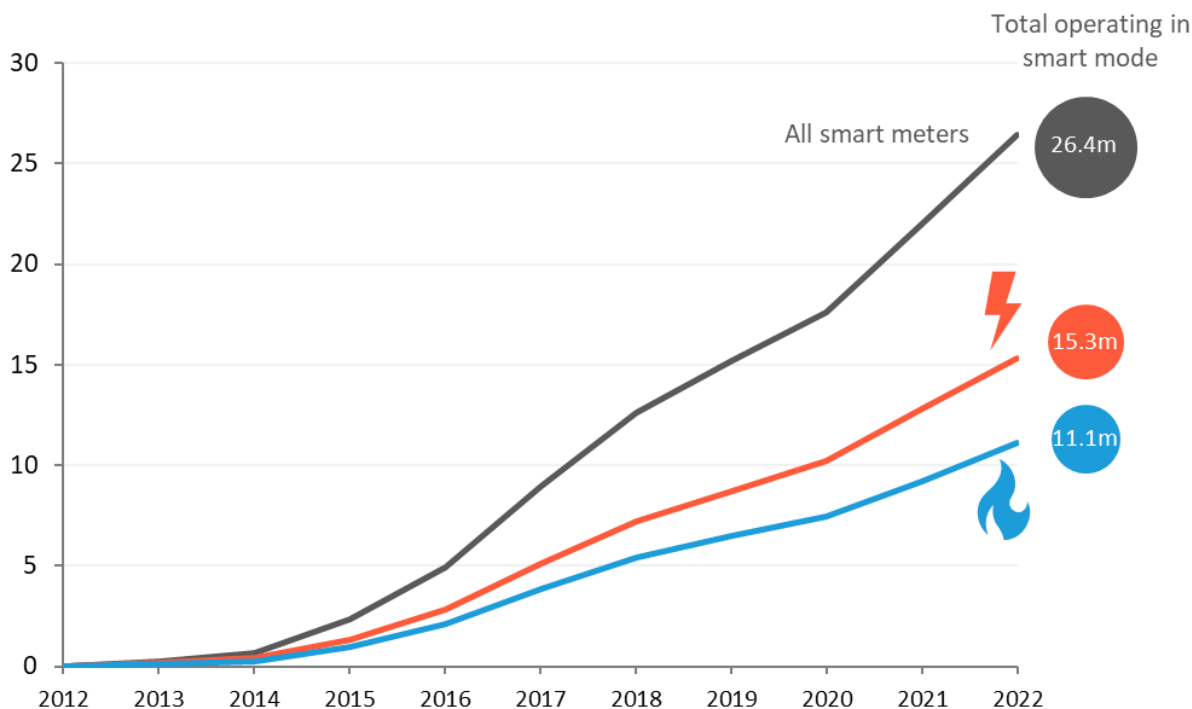


Source: Energy Suppliers reporting to Department for Energy Security & Net Zero.

The annual increase in smart meters operating in smart mode is shown in Figure 4. The latest figures show that 26.4 million domestic smart meters in smart mode were operated by all energy suppliers, up by 20% from the end of 2021. This increase is driven by new installations in 2022 as well as ongoing enrolment of dormant SMETS1 meters on to the national communications network, run by DCC.

Figure 4: Domestic smart meters operating in smart mode increased to 26.4 million at the end of 2022

Great Britain, domestic smart meters operated in smart mode by all energy suppliers
2012 to 2022, millions



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

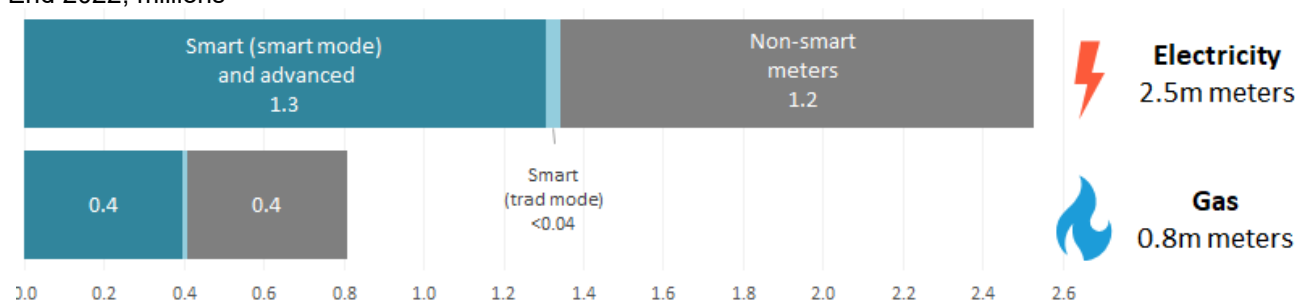
Operational meters in smaller non-domestic sites

Collectively across both large and small energy suppliers, there were 1.7 million smart and advanced meters in non-domestic sites in Great Britain at the end of 2022; 52% of all non-domestic meters. This is only marginally higher (one percentage point) than the proportion of smart meters operating in smart mode or advanced meters since so few non-domestic smart meters operate in traditional mode (Figure 5).

Figure 5: Fifty-one per cent of non-domestic meters are smart meters operating in smart mode or advanced meters

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

End 2022, millions



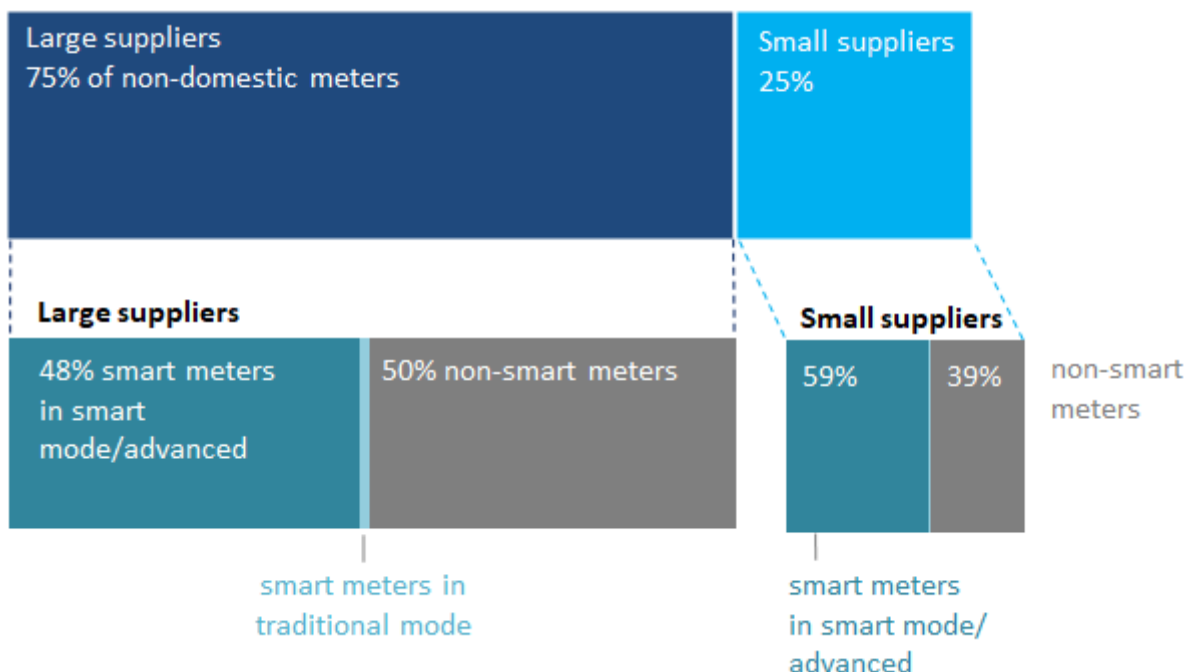
Source: Energy Suppliers reporting to Department for Energy Security & Net Zero.

Figure 6 illustrates that large energy suppliers operate 75% of non-domestic meters, lower than the proportion in the domestic sector. Of these meters, 48% were smart meters operating in smart mode or advanced meters. In comparison, the proportion for small suppliers, who supply the remainder of the non-domestic sector, was greater (59%).

Figure 6: Small suppliers continue to operate a larger proportion of smart / advanced meters than large suppliers in the non-domestic sector

Great Britain, non-domestic meters

End 2022



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

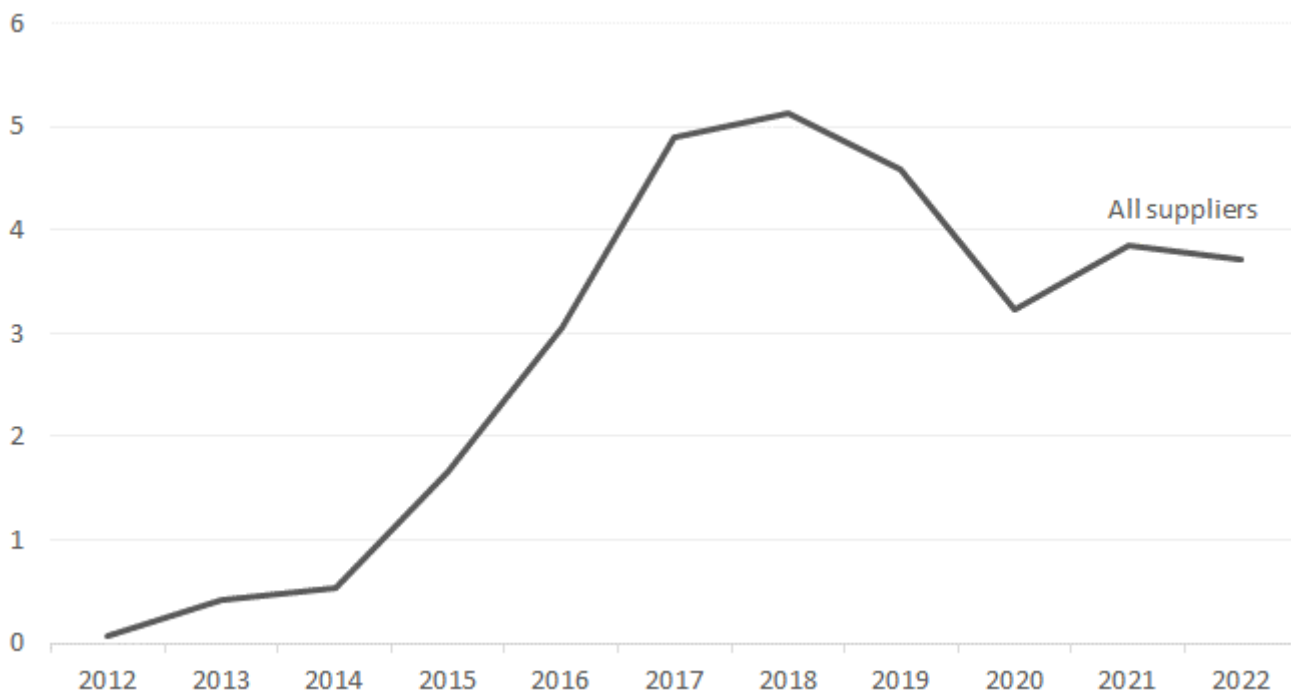
Meters installed

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.

A total of **3.7 million** smart and advanced meters were installed in 2022, with 98% installed by large suppliers and 2% by small suppliers. Overall, installation levels decreased by four per cent compared to 2021 (Figure 7). Movement of suppliers between the large and small classification, along with the impacts of the Supplier of Last Resort scheme ([Technical Information](#)) mean changes in the relative contributions of large and small suppliers over time are not comparable.

Figure 7: Smart and advanced meters installations decreased by four per cent on 2021

Great Britain, smart and advanced meters installed by all energy suppliers
2012 to 2022, millions



Source: Energy Suppliers reporting to Department for Energy Security & Net Zero. [Data for 2018 to 2021 revised]

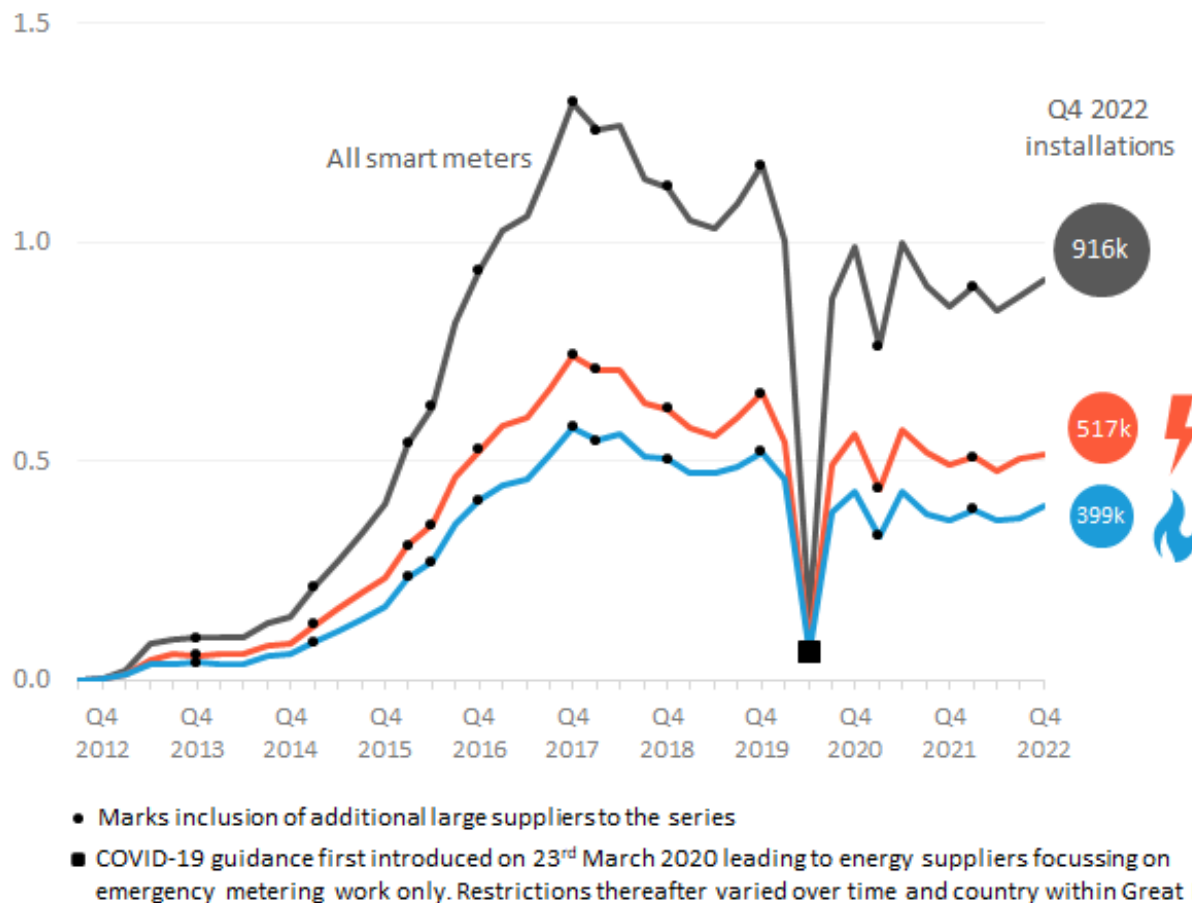
Meters installed in domestic properties

In 2022, a total of 3.6 million smart meters were installed in domestic properties, of which 99% (3.5 million) were installed by large suppliers and 1% (48,400) by small suppliers. In total, domestic installations have decreased by 4% since 2021. Figure 8 shows quarterly installation activity by large energy suppliers over the course of the smart meter rollout. In Q4 2022, **915,600** smart meters were installed by large energy suppliers representing a five per cent increase in smart meter installations compared to the previous quarter. It is also the second consecutive quarter that domestic installations carried out by large suppliers has increased during 2022.

Figure 8: Domestic smart meters installed by large energy suppliers

Great Britain, domestic meters installed by large energy suppliers

Q3 2012 to Q4 2022, millions



Source: Energy Suppliers reporting to Department for Energy Security & Net Zero. [Data for Q1 2018 to Q3 2022 revised]

Meters installed in smaller non-domestic properties

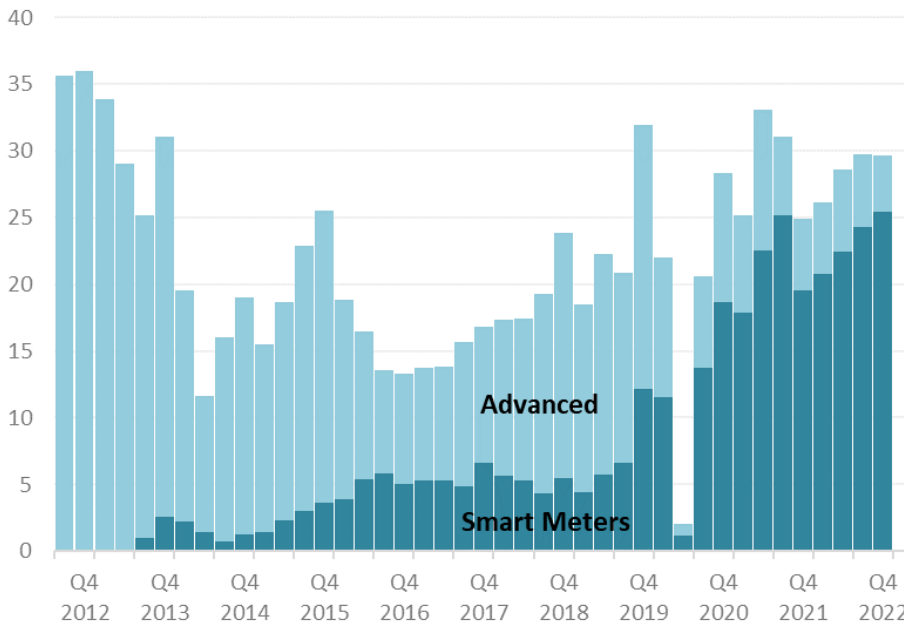
In 2022, 144,600 smart and advanced meters were installed in smaller non-domestic sites by all energy suppliers in Great Britain; broadly unchanged with installation activity in 2021. Of the total number of non-domestic installations during 2022, 114,100 (79%) were installed by large suppliers and 30,500 (21%) by small suppliers. Most non-domestic installations during 2022 were electricity meters (80%) reflective of the majority (76%) of non-domestic meters being electricity meters.

Quarterly installation activity by large energy suppliers in non-domestic sites is shown in Figure 9. In Q4 2022, there were **29,700** smart and advanced meters installed in smaller non-domestic sites by large energy suppliers. This is similar to the number of installations seen in Q3 2022; with a small increase in the proportion being smart rather than advanced (82% in Q3 2022 and 86% in Q4 2022).

The Q3 2022 statistics in this quarter’s publication have been revised from those published on 24 November 2022 due to corrected data being provided by an energy supplier; please see Table 4 of the supporting data tables. This revision changes previously provided commentary indicating that Q3 2022 non-domestic installations were at a record high, while all other commentary remains correct.

Figure 9: More than eight in ten smart/advanced meters installed at non-domestic sites were smart meters

Great Britain, non-domestic meters installed by large suppliers
Q3 2012 to Q4 2022, thousands



Source: Energy Suppliers reporting to Department for Energy Security & Net Zero. [Data for Q1 2022 to Q3 2022 revised]

Accompanying tables

The following tables are available in two formats⁵ on the department's statistics 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

⁵ Excel (.xlsx) and Open Document Spreadsheet (.ods)

Technical information

Large energy suppliers report data quarterly and data is reported annually by small suppliers. This means that the total meters covered in the quarterly data varies due to customers switching between large and small suppliers. This 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.

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 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

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		
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		
People's Energy	Q4 2020 ⁶	Q3 2021	Ceased trading, customers transitioned to British Gas
nPower		Q4 2020	Combined reporting with E.ON, following merger in 2019
E	Q4 2021 ⁵		
So Energy	Q4 2021 ⁵		Includes ESB

⁶ Meters installed included in the large supplier group from the subsequent quarter.

In addition to the recent market exits, there were also definitional changes to the large supplier classification, so that more suppliers are included. This meant that E and So Energy, transitioned into large energy suppliers (Table 3); their meters in operation were transitioned in the Q4 2021 publication to avoid disclosing individual supplier information and their installation activity in the Q1 2022 publication.

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

14 Large Energy Suppliers:

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

* Octopus Energy acquired Bulb on 21st December 2022. For this publication, Bulb have reported data to us separately from Octopus Energy.

42 Small Energy suppliers at the end of 2022:

Avanti Gas	ENGIE	Smartest Energy Business
BES Utilities	Foxglove Energy	Square1 Energy
BPG Energy	Good Energy	Squeaky Clean Energy
Brook Green Supply	Green Energy	Switch Business Gas and Power
Bryt Energy	Marble Power	Tomato Energy Limited
Champion Energy	Maxen Power	Total Energies
Corona Energy	MB Energy	Tru Energy
Crown Gas & Power	National Gas	UK Gas Supply
D-ENERGi	Pozitive Energy	Unify Energy
Delta Gas & Power	Rebel Energy	United Gas & Power
Dodo Energy	Regent Gas	Valda Energy
Drax Energy	SEFE Energy (previously Gazprom)	Verastar
Dyce Energy	Shell Energy Business UK	Yorkshire Gas & Power
Ecotricity	Smartest Energy	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	<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>
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	<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>
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

Further information

Future updates to these statistics

The next quarterly publication is planned for publication on 25 May 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 [energy 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 2021 covering UK, the data for 2022 is due to be published in December 2023.

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@beis.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@beis.gov.uk
- Statistical enquiries: 0300 068 5044
- Media enquiries: 020 7215 1000
- General enquiries: smartmetering@beis.gov.uk



© Crown copyright 2023

This publication is licensed under the terms of the Open Government Licence v3.0 except where otherwise stated. To view this licence, visit nationalarchives.gov.uk/doc/open-government-licence/version/3 or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or email: psi@nationalarchives.gsi.gov.uk.

Where we have identified any third-party copyright information you will need to obtain permission from the copyright holders concerned.

This publication is available from: <https://www.gov.uk/government/collections/smart-meters-statistics>

If you need a version of this document in a more accessible format, please email smartmeter.stats@beis.gov.uk. Please tell us what format you need. It will help us if you say what assistive technology you use