



26 September 2013

STATISTICAL RELEASE: EXPERIMENTAL STATISTICS

Smart Meters, Great Britain, Quarterly report to end June 2013

Introduction

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 by the larger energy suppliers (i.e. British Gas, EDF Energy, E.ON, Npower, Scottish Power and SSE) in properties in the last quarter and the total in operation as of 30 June 2013.

The Smart Metering Implementation Programme is being delivered in two phases: the Foundation Stage and mass roll-out. During the Foundation Stage, which began in March 2011, the Government is working with the energy industry, consumer groups and other stakeholders to ensure all the necessary groundwork is completed before energy suppliers start the mass roll-out. Mass roll-out is expected to begin in Autumn 2015 and to be completed by the end of 2020. Further information can be found on the GOV.UK website.

The larger energy suppliers are currently installing smart, smart-type and traditional meters in domestic properties and advanced and traditional meters in smaller non-domestic sites (an explanation of the differences between these meters is included on page 3 of this document).

Key points

- 80,600 smart meters (45,500 electricity meters and 35,100 gas meters) were installed in domestic properties in quarter two 2013 (Chart 1 and Table 1). This compared to 23,600 smart meters installed in quarter one. A total of 107,500 have been installed to date.
- 89,400 smart meters are now operating in 'smart mode' in domestic properties across Great Britain (Table 2). This represents 0.2 per cent of all domestic meters.
- 29,000 advanced meters (28,700 electricity meters and 300 gas meters), which meet the roll-out obligation were installed in smaller non-domestic sites in quarter two 2013 (Chart 2 and Table 1). This compared to 33,900 advanced meters installed in quarter one, and continues the fall seen in recent quarters.
- 520,000 advanced meters are now operating in smaller non-domestic sites across Great Britain (Table 2). This represents 18.5 per cent of all smaller non-domestic site meters.

Chart 1 – Number of smart meters installed by the larger energy suppliers in domestic properties, by fuel type and quarter

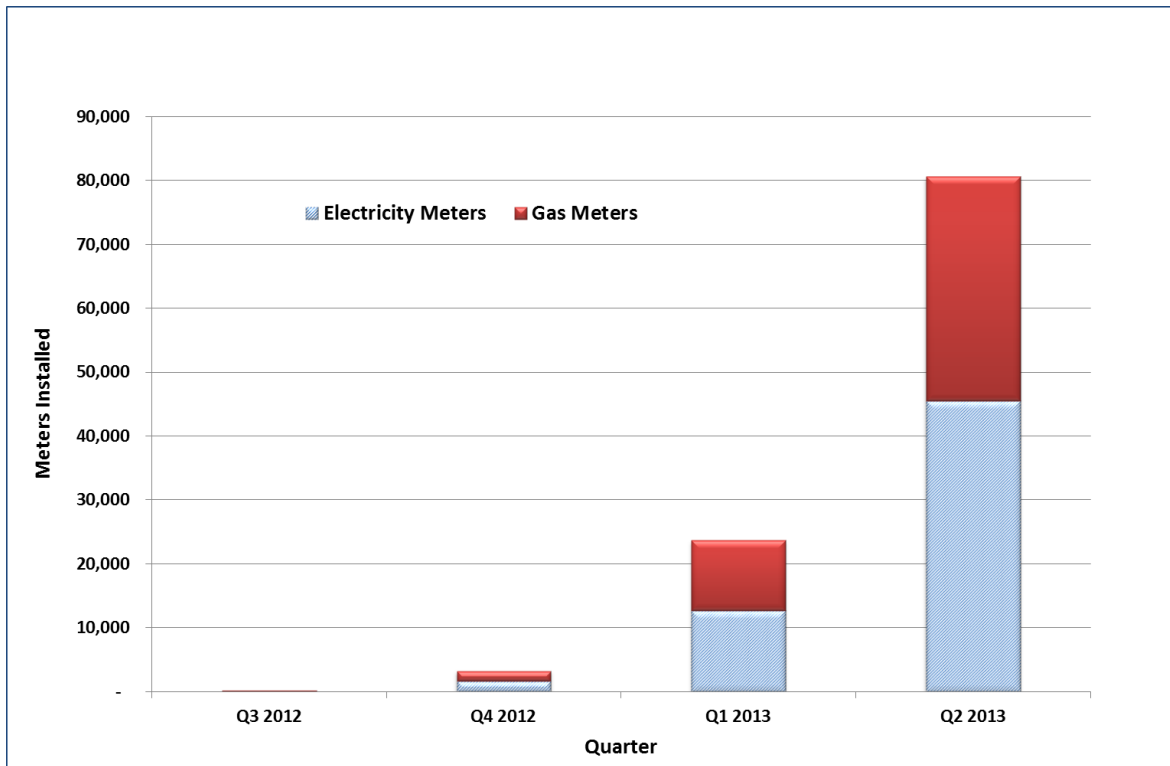
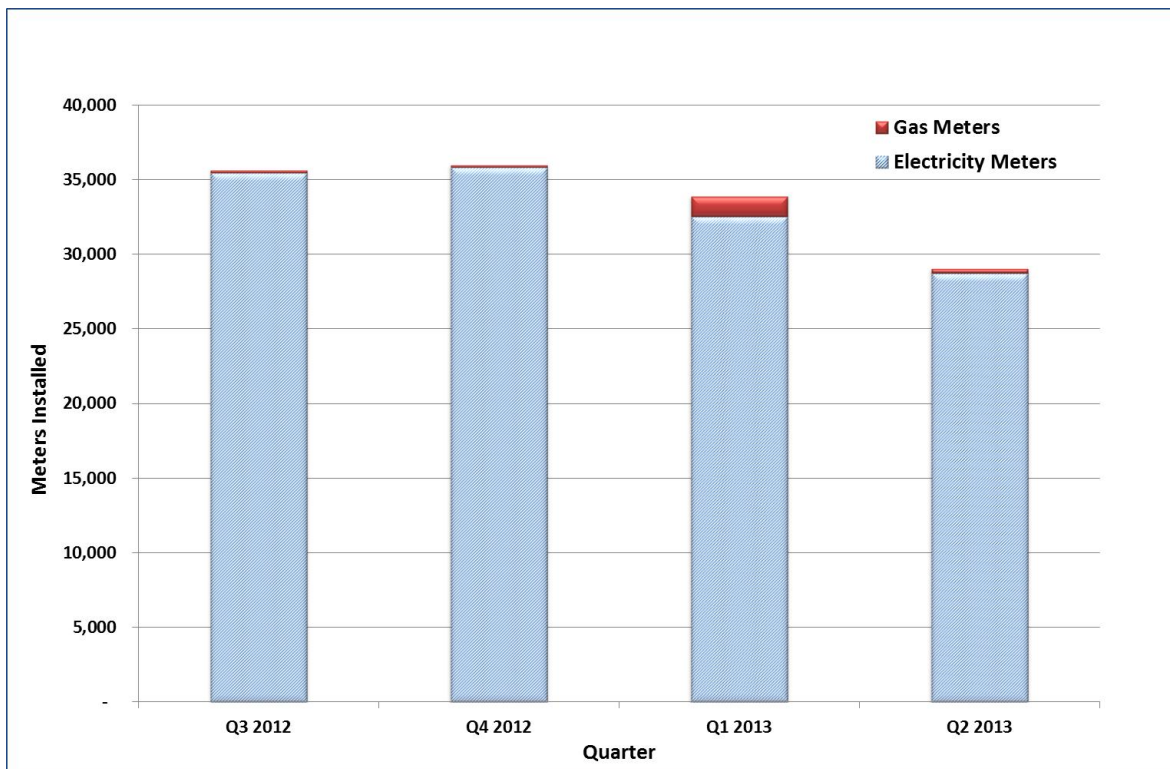


Chart 2 – Number of advanced meters installed by the larger energy suppliers in smaller non-domestic sites, by fuel type and quarter



Types of gas and electricity meters

Smart meters

Smart meters are the next generation of gas and electricity meters and they can offer a range of intelligent functions. Consumers will have near real time information on their energy consumption to help them control and manage their energy use, save money and reduce emissions. Smart meters will also provide consumers with more accurate information and bring an end to estimated billing.

A smart meter is compliant with the [Smart Meter Equipment Technical Specification \(SMETS\)](#) and has functionality such as being able to transmit meter readings to suppliers and receive data remotely. Energy suppliers are required to install SMETS compliant smart meters in domestic and smaller non-domestic sites by the end of 2020 (with the exception of some advanced metering being installed in smaller non-domestic sites - see below). Each energy supplier reports the number of smart meters it has installed and is operating to DECC and includes both meters that are SMETS compliant, and those they expect to upgrade to become SMETS compliant. Suppliers have indicated that most, if not all, of the smart meters currently installed will need to receive updates, which are expected to be delivered remotely, before they are fully SMETS compliant.

Advanced meters

In smaller non-domestic sites, advanced meters may be installed as an alternative to SMETS compliant smart meters where they have been installed before April 2014 (or if contracts to install meters are in place before April 2014). The Government recently consulted on the possibility of extending the period beyond April 2014 and will respond shortly.

As a minimum, an advanced meter can store half-hourly electricity and hourly gas data, to which the customer can have timely access and to which the supplier can have remote access. However, meters described as “advanced” in this report may have many of the additional functions found in a smart meter that meets the Government’s technical specification.

Smart-type meters

Some suppliers have chosen to make an early start by rolling out smart-type meters to domestic properties before smart meters were available. Smart-type meters offer some of the functionalities included in SMETS. Suppliers have learned lessons from installing and operating smart-type meters, which will benefit the smart meter roll-out and their customers have had early access to some of the benefits of smart metering. Nevertheless, 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 suppliers’ roll-out obligations.

Traditional meters

Traditional meters are currently found in most homes and smaller non-domestic sites and do not have any smart capability. Traditional meters will be replaced by smart meters (and in some cases advanced meters in smaller non-domestic sites) during the smart meter roll-out.

Types of Properties

Domestic properties

The customer is supplied with electricity or gas wholly or mainly for domestic purposes.

Smaller non-domestic sites

A business or public sector customer whose site uses low or medium amounts of electricity or gas (defined as using less than 732MWh of gas per annum and falling within Balancing and Settlement Code Profile Classes 3 or 4). The sites therefore range from individual micro- and small businesses to the smaller sites of large private and public sector organisations.

Results

This section provides a summary of the number of smart meters installed in quarter two 2013 and previous quarters and the number being operated in smart mode.

In total, in Great Britain there are 21.8 million gas meters (21.3 million domestic and 0.5 million non-domestic) and 28.1 million electricity meters (25.8 million domestic and 2.3 million non-domestic) operated by the larger energy suppliers. Chart 3 shows the proportion of meter types present in domestic and non-domestic properties, by fuel type, as at the end of June 2013.

Chart 3 – Proportion of domestic and non-domestic meters by fuel type and meter type, end June 2013

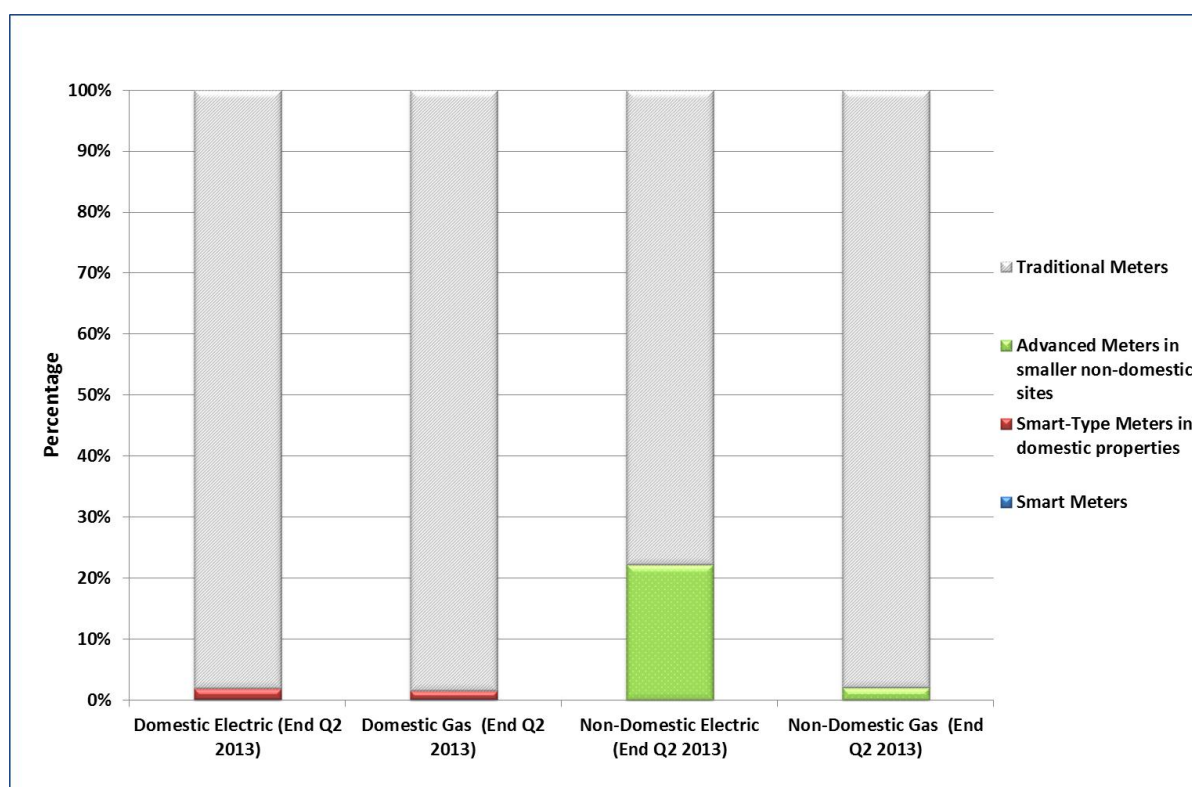


Table 1, below, presents the number of smart meter installations delivered within each quarter by domestic and non-domestic properties and meter type.

In quarter two 2013, there were 80,600 smart meters installed (an increase from 23,600 in quarter one 2013) and 17,900 smart-type meters (a decrease from 42,500 in quarter one 2013) installed in domestic properties. The number of smart-type meters installed is expected to continue falling in subsequent quarters as suppliers increasingly focus on smart meter installations. In the same period, there were 29,000 advanced meters installed in non-domestic sites (a decrease from 33,900 in quarter one 2013) with suppliers gradually decreasing the number of advanced installations per quarter.

Table 1: Number of smart meter installations by the larger energy suppliers by meter type and quarter

Quarter	Domestic Properties		Non-Domestic Properties	
	Smart Meters	Smart-Type Meters [will need to be replaced by 2020]	Smart Meters	Advanced meters
Q3 2012	68	*	-	35,641
Q4 2012	3,241	61,106	-	35,978
Q1 2013	23,641	42,484	-	33,850
Q2 2013	80,586	17,941	-	29,012

*Data not available

Table 1a: Number of electricity smart meter installations by the larger energy suppliers by meter type and quarter

Quarter	Domestic Properties		Non-Domestic Properties	
	Smart Meters	Smart-Type Meters [will need to be replaced by 2020]	Smart Meters	Advanced meters
Q3 2012	36	*	-	35,455
Q4 2012	1,671	31,552	-	35,834
Q1 2013	12,678	19,656	-	32,529
Q2 2013	45,456	16,282	-	28,722

*Data not available

Table 1b: Number of gas smart meter installations by the larger energy suppliers by meter type and quarter

Quarter	Domestic Properties		Non-Domestic Properties	
	Smart Meters	Smart-Type Meters [will need to be replaced by 2020]	Smart Meters	Advanced meters
Q3 2012	32	*	-	186
Q4 2012	1,570	29,554	-	144
Q1 2013	10,963	22,828	-	1,321
Q2 2013	35,130	1,659	-	290

*Data not available

Table 2, below, shows the total number of meters, by type, being operated by the larger energy suppliers as of the end of each quarter. The numbers of smart meters in operation are those meters which the suppliers are currently operating in smart mode. This may be different from the total number installed for a number of reasons such as technical issues preventing the meter from operating in smart mode (e.g. the meter is not able to communicate externally with the supplier via the wide area network) or because currently, when customers switch suppliers, the new supplier may choose to operate the smart meter in traditional mode.

At the end of June 2013 there were 89,400 domestic smart meters operating in smart mode (an increase from 24,000 at the end of quarter one 2013). This compares with the

total number of smart meters installed of 107,500 and reflects some meters being operated in traditional mode.

There were 744,500 domestic smart-type meters operating (an increase from 726,500 in quarter one 2013). However, as suppliers move to smart meters, this total is not expected to grow significantly in future quarters.

There were 520,000 non-domestic advanced meters (an increase from 511,000 in quarter one 2013) in operation.

The number of traditional meters in operation fluctuates between quarters both in domestic and smaller non-domestic properties. This could be for a variety of reasons which may include for example, meter installations in new buildings, building demolitions and customers switching to and from smaller suppliers.

Table 2: Number of meters operated by the larger energy suppliers by meter type at end of quarter

Quarter	Domestic Properties			Non-Domestic Properties	
	Smart Meters (operating in Smart Mode)	Smart-Type Meters	Traditional Meters	Smart and Advanced Meters	Traditional Meters
Q3 2012	256	622,919	46,927,381	365,007	2,324,686*
Q4 2012	3,200	684,025	47,041,924	454,233	2,397,238
Q1 2013	24,040	726,509	46,613,562	511,069	2,369,005
Q2 2013	89,375	744,450	46,231,380	520,039	2,298,121

* Estimated - Q3 2012 non-domestic traditional meters

Table 2a: Number of electricity meters operated by the larger energy suppliers by meter type at end of quarter

Quarter	Domestic Properties			Non-Domestic Properties	
	Smart Meters (operating in Smart Mode)	Smart-Type Meters	Traditional Meters	Smart and Advanced Meters	Traditional Meters
Q3 2012	132	376,423	25,786,824	354,969	1,771,055*
Q4 2012	1,739	407,975	25,766,990	444,943	1,864,295
Q1 2013	12,049	427,631	25,495,489	500,960	1,832,983
Q2 2013	50,038	443,913	25,307,746	509,436	1,790,147

* Estimated - Q3 2012 non-domestic traditional meters

Table 2b: Number of gas meters operated by the larger energy suppliers by meter type at end of quarter

Quarter	Domestic Properties			Non-Domestic Properties	
	Smart Meters (operating in Smart Mode)	Smart-Type Meters	Traditional Meters	Smart and Advanced Meters	Traditional Meters
Q3 2012	124	246,496	21,140,557	10,038	553,631*
Q4 2012	1,461	276,050	21,274,934	9,290	559,271
Q1 2013	11,991	293,878	21,118,073	10,109	536,022
Q2 2013	39,337	300,537	20,923,634	10,603	507,974

* Estimated - Q3 2012 non-domestic traditional meters

Annex A – Background to Smart Meter Roll-out

The Government's vision is for every home in Great Britain to have smart electricity and gas meters and for smaller non-domestic sites to have smart or advanced metering suited to their needs. Smart metering is a major national programme: one of the largest and most complex investment programmes undertaken by the energy industry. The programme aims to roll-out 53 million smart electricity and gas meters to all domestic properties and smart or advanced meters to smaller non-domestic sites in Great Britain by the end of 2020, impacting approximately 30 million premises.

The roll-out of smart meters will play an important role in Britain's transition to a low-carbon economy and help meet some of the long-term challenges in ensuring an affordable, secure and sustainable energy supply.

The Smart Metering Implementation Programme is being delivered in two phases: the Foundation Stage and mass roll-out. During the Foundation Stage, which began in March 2011, the Government is working with the energy industry, consumer groups and other stakeholders to ensure all the necessary groundwork is completed before energy suppliers start the mass roll-out. Mass roll-out is expected to begin in Autumn 2015 and to be completed by the end of 2020.

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. Suppliers' proposed approaches to the roll-out vary and take into account factors such as the location of their customer base and installation workforce and when their customers would need their traditional meters replaced on a routine basis. The approach adopted by suppliers may change as they progress into and through mass roll-out.

Suppliers are using the Foundation Stage to undertake testing and trialling of installations to prepare for mass roll-out, to help ensure their customers have a positive experience of smart metering. Therefore, some consumers will receive smart meters during the Foundation Stage, as the energy suppliers start up their programmes in preparation for mass roll-out. However, the majority of consumers will receive their smart meters during mass roll-out.

Annex B - Data and Processing

The Smart Meter Implementation Programme request (on a quarterly basis) data relating to the number of smart and traditional meters from the larger energy suppliers. This will enable the Programme to monitor the roll-out of smart meters over time. More detail is provided on the methodology and quality assurance in the [methods note](#) but in brief:

Suppliers are responsible for aggregating their own data to enable them to provide information on the number and type of meters installed and operating each quarter. Each supplier extracts data from their internal IT systems, aggregates and quality checks it, before submitting to DECC who in turn quality assure the data and resolve any issues arising with suppliers. Each supplier provides this information one month

after the end of each quarter to ensure that statistics produced are timely and relevant. The data is aggregated to industry level ensuring that commercial sensitivity is respected.

The data only covers the meters installed and operated by the larger energy suppliers and has not been adjusted to take account of smaller supplier installations. The larger energy suppliers are estimated to supply approximately 99%¹ of domestic properties and approximately 90% of smaller non-domestic sites. It is expected that smaller suppliers will begin reporting information to DECC on an annual basis from 2014.

Experimental Statistics

These estimates are released as Experimental Statistics which means they are official statistics undergoing an evaluation process prior to being assessed as 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 [methods note](#).

As with any new 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.

Further information and feedback

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

EnergyEfficiency.Stats@decc.gsi.gov.uk

Contact telephone: 0300 068 5657

The statistician responsible for this publication is Gary Smith.

Further information on energy statistics is available at

<https://www.gov.uk/government/organisations/department-of-energy-climate-change/about/statistics>

Next release

The next quarterly publication is planned for publication on **12 December 2013 at 9.30am**.

¹ The Retail Market Review, Ofgem, October 2012: <https://www.ofgem.gov.uk/ofgem-publications/39457/retail-market-review-updated-domestic-proposals.pdf>

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