Department of Energy & Climate Change

Attitudes towards and experiences of smart meters in the non-domestic SME market

Report on full fieldwork

Research conducted by Ipsos MORI for DECC

22nd October 2013

Executive Summary

Background to the research

The Government has mandated the installation by energy suppliers of smart energy meters in all domestic and smaller non-domestic premises by 2020 – it is anticipated that this will cover around 53 million meters. Smart meters will be installed over two implementation phases: the Foundation Stage, which began in April 2011; and Mass Roll-out, which is planned to begin in Autumn 2015 and be completed in 2020. Some suppliers are already starting to install smart meters during the Foundation Stage.

A significant part of the projected benefits of the Programme are from energy savings resulting from consumers accessing and using consumption data from the meters, and the provisions on data access are designed to ensure that customers have easy access to their data.

The Department of Energy and Climate Change (DECC) is gathering evidence during the Foundation stage of the Smart Meters Implementation programme about how to ensure smart meter benefits are realised. To this end, DECC commissioned qualitative research with small and medium sized businesses that would be affected by the upgrade to smart meters. This project explored their awareness, understanding, experiences of and attitudes towards smart energy meters and smart energy products and services. To meet the research objectives, a sample of SMEs with smart meters, and a sample of SMEs without smart meters, was recruited and interviewed.

The Government mandate defines a smart meter as one that is compliant with the Smart Meter Equipment Technical Specification (SMETS) and has a specified range of functions including 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. The exception to this is in smaller non-domestic sites where advanced meters may remain in place for their lifetime if they were installed before April 2016 (or if contracts to install meters were in place before April 2016). 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, some advanced meters installed in smaller non-domestic settings may have many of the additional functions found in a smart meter that meets the Government's technical specification.

For the purposes of this research a 'smart meter' was defined as an advanced meter with many, but not all, of the additional functions found in a smart meter that meets the Government's technical specification.

Ipsos MORI carried out the research through a series of face-to-face in-depth interviews with owners or senior managers of SMEs who were responsible for decisions about energy management, supply and metering. Forty-one interviews took place between 22 April and 21 June 2013.

This report is based on the analysis of the 41 interviews conducted. The project is qualitative in nature, and the respondents were recruited to represent a broad range of views and experiences rather than to be representative of the whole SME market. The research did not manage to recruit SMEs which had access to detailed consumption data from smart or advanced meters, and so does not report on how such data is being used at present or on the views of such users. It also did not include those smaller non-domestic sites within the scope of the roll-out that are

occupied by larger businesses and public sector organisations, which tend to have different characteristics and requirements. It should be noted that the sample of those with a smart meter was recruited from a single energy provider. It is possible that customers of other energy providers may have had different experiences in terms of the way smart meters were promoted and installed, the information provided about the smart meter and the data available to SMEs on their energy usage. This presents a limitation in the way the findings can be interpreted and should be borne in mind when reading this report.

SMEs included in the research showed few differences in attitudes as a result of size, sector or location; where there are differences these are highlighted. There were differences based on attitudes to energy usage and management and these are discussed in the report.

Energy use and engagement

Most respondents felt their energy usage was simple, with energy being used simply to heat and light their premises and to power computers and other office equipment. The main variation in use was seasonal, with more heat and light used in the winter months.

A few respondents used more energy to run specific equipment (for example cookers in restaurants, hair dryers in salons or printing equipment). These respondents also felt their energy use was consistent and predictable.

Reported energy expenditure varied from £720 per annum (for the smallest retailer) to £45,000 (for a large importer/manufacturer/retailer). The reported proportion of operating costs ranged from <1% (for professional services with high salary costs) to 33% (for the smallest retailer[1]). The reported average was 10-15% of operating costs.

While increasing energy costs were mentioned by many respondents, most viewed energy as a known and planned-for business expense, even though the actual cost varied over time. Most stated they knew roughly how much their energy bills would be and only investigated this further if the amount was not in line with their expectations.

Nearly all respondents stated that accurate energy bills were important. Respondents with a smart meter were generally happy that their energy bills were accurate while those without a smart meter tended to check their bills.

Many respondents had switched energy provider in the past. Respondents tended to fall into 3 broad groups[2] in terms of their attitude to switching with the largest number falling into the first group and slightly smaller numbers into the second and third groups listed below:

- Happy to switch– this group were confident to switch providers and had done so many times before.
- Have or will switch but have concerns about doing so – these respondents were more nervous about switching providers than the first group but would switch if there was a trigger event.

[1] It was not clear whether or not this respondent included salary cost when calculating the proportion.
[2] It should be noted that this was a relatively small qualitative project and as such these groups represent loose groupings of respondents rather than a formal segmentation.

- No experience of switching/would not switch– this group was the most resistant to switching. Many had smart meters; the meter was not a barrier to switching but did remove the main trigger (disputed estimated bills).

Most respondents reported a distant relationship with their energy provider, but were generally happy with this situation. Most respondents felt little loyalty to their provider and many shopped around for the best tariff at contract renewal time. Several respondents mentioned wanting a different relationship similar to the relationship they had with their "bank manager"; that is someone who could advise about energy management but did not have a sales role.

Awareness of energy brokers[3] was high and many had used their services. While respondents found getting a good deal on their energy costs attractive, they also found the number of phone calls from energy brokers a nuisance. Several mentioned their reluctance to use companies about whom they had limited knowledge, preferring to find a broker themselves than use someone who cold-called.

Energy management

Most respondents felt that they were managing their energy use as well as they possibly could and perceived energy management as essentially a cost reduction exercise.

A small number of respondents were more engaged with the concept of energy management. This group was the most likely to refer to climate change and environmental issues generally and a number already had micro-renewable energy sources (mainly solar panels).

There were also a small number of respondents who were uninterested in energy management – these were mainly professional services organisations for which energy represented a very small part of their operating costs.

The greatest trigger to energy management was reducing costs. The most frequently mentioned forms of energy management were:

- Doing the easy stuff, for example using low energy lighting. Turning down the heating a little;
- Encouraging behaviour change, for example turning off lights/computers when not in use and at the end of the day;
- Choosing more energy efficient equipment when replacing old equipment; and
- Shopping around for the best energy tariff – many respondents considered this part of energy management although it would not be classified as such within the energy sector.

The greatest barriers to energy management are shown below (the most mentioned are first). These barriers reflect respondents' belief that:

- They were already doing what they could to reduce costs;
- Any resulting costs savings would be minimal;
- They did not have the time to focus on this issue;

[3] Energy brokers provide a tariff search and/or negotiation service. They do not, generally, provide advice on energy management.

- Staff had little incentive to help reduce energy use;
- The capital outlay for improvements would not be recouped within a reasonable time;
- Any variation in energy use was not within their control; and
- That neither landlords nor tenants had an incentive to make (potentially costly) improvements to buildings as neither could guarantee to recoup the initial cost.

Few respondents were interested in receiving advice about energy management – mainly because they felt they were already doing as much as they could. Most respondents felt that it was manufacturers and larger organisations (with larger energy costs) that would benefit more from energy management advice.

Energy providers were mentioned most often as the expected source of advice. However, many respondents felt energy providers had a vested interest in keeping energy consumption and prices high in order to protect their revenues.

Awareness of energy consultants[4] was low and most respondents felt that energy consultants believed SMEs were too small to be an attractive market. Put simply, respondents felt their energy spend was too low to justify them paying a large consultant fee or to make them a viable proposition for any consultants who would take a commission based on savings from their energy bill.

The benefits of energy management advice (in order of most mentions) were seen to be:

- Saving money;
- Saving time, especially when energy brokers did the searching and comparing of tariffs;
- Having a better understanding of energy consumption and bills; and
- Being greener.

The main barrier for respondents was having to pay an upfront fee for such advice.

Smart meters

Respondents had a limited awareness of smart meters and the benefits they offer, even among those with a smart meter. However as noted above, this was in the context that the research did not manage to recruit SMEs which had access to detailed consumption data from smart or advanced meters.

Respondents without smart meters recognised few benefits beyond accurate billing. Those with smart meters felt the main advantages of a smart meter were:

- Accurate bills, and specifically avoiding disputes over bills;
- An end to meter readings;
- The ability to monitor and track energy patterns; and
- Saving money.

[4] Energy consultants are those organisations which offer advice on energy usage and how to manage/reduce it. They may also offer a tariff negotiation service but this is only part of their offering.

Those respondents with smart meters saw few disadvantages, while those without a smart meter felt the main disadvantages of smart meters were:

- Issues around technical factors and the reliability and accuracy of the meters;
- Potential disruptions during installation; and
- Not understanding the data produced by the smart meter and how it could be used to reduce energy use.

There was little active resistance to having a smart meter installed amongst those without a smart meter – although there was also little active interest as these respondents did not see many real benefits for their organisation in having a smart meter. This lack of perceived benefit was the greatest barrier to installing smart meters. This was echoed by the opinions of those with a smart meter that it had made little or no difference to their business.

For those with a smart meter, most were simply informed by their energy provider[5] that their meter needed to be updated. Generally this was felt to be sufficient reason for the change and for most the installation process went smoothly. There were no reports of installation engineers making any attempt to sell additional services to the businesses in this sample. While respondents were happy at the time, with hindsight (and often prompted by the interview) many would have liked more information about their smart meter and the benefits it offered.

Information sources

Those respondents who were aware of smart meters - whether they had a smart meter or not- were most likely to say they had heard about them via the media, through word of mouth or through their energy provider.

Most respondents wanted independent information about smart meters and the benefits they offer. Government sources were generally seen as independent and trustworthy. Energy providers were considered to have a vested interest in the roll out of smart meters and therefore could not offer independent information about them. However, respondents also felt that energy providers were the best channel for getting information to SMEs.

The greatest challenge in raising awareness of smart meters and their benefits was seen by respondents to be getting the information in front of the relevant decision maker in a format they would pay attention to. Most stated they paid little attention to information that accompanied bills. On reflection they felt the best channels were either mass media (specifically TV) or through their trade bodies whose publications they do tend to read. Once aware of smart meters and their benefits, most respondents stated they would be happy to use the internet to find out more details.

When asked how the information should be presented, respondents said they wanted:

- Simple terminology to describe the technology;
- Information aimed at a business audience;
- Balanced and objective information; and

[5] It should be noted that this may reflect the fact that the customers of only one energy provider were included, other energy providers may have promoted smart meters differently.

- A visually appealing layout.

They did not want a long-winded piece of advertising that used technical language.

Usage data from the smart meter

Few of the respondents with a smart meter were aware of the full functionality of their smart meter and none were using the energy usage data it could produce. Most respondents, especially those without a smart meter, were interested in seeing their energy usage data. While for many this was simple curiosity, more would be interested in using the data if they could see how to save money and a few said they would build the data into their existing management information processes.

The greatest barrier to using the data was lack of awareness that it existed. Other barriers mentioned were lack of time to find the data; an inability to understand what the data was saying and how it could be used to reduce energy consumption; and also a concern that it would cost money to access the data.

If the data was available, of the alternatives explained to them most respondents preferred to access it online or through an IHD.

Promotion of smart meters to SMEs

Respondents felt the most powerful message to promote smart meters was that they could save money. They were happy to be told it was a simple upgrade, but if the message mentioned potential benefits, for example around access to energy usage data, this was seen as potentially raising concerns about costs to the business for accessing the data.

Respondents suggested that an effective approach would be to combine the upgrade message with the benefit of accurate billing; which would offer the advantage to the SME of smoothing cash flow and ending disputes with their energy provider for any unexpected bills.

Conclusions

The main perceived and experienced benefits of smart metering were seen to be accurate billing and putting an end to meter readings. Whilst there was also interest in having the ability to monitor and track energy patterns, no respondents with smart meters were using this facility and none was aware that it was possible

The study has shown that in order to fully benefit from the installation of a smart meter, SMEs need to be made aware of the functionality of a smart meter and how this can be used to reduce energy usage. There was an appetite and interest on the part of most of the SMEs (with and without smart meters) in receiving appropriate information which explained the potential benefits of smart metering and the options available.

A range of attitudes and approaches to energy and energy management by SMEs were revealed by the study. While the study was not intended to quantify this range or provide a

segmentation of SMEs[6], three broad groupings were identified, providing a useful initial classification:

- the “Trying” group (the largest group), who felt they were doing as much as they could to reduce costs, without the benefit of detailed information;
- the “Advocates” (a few respondents only) who tended to be environmentally motivated, and were the most interested in having and using data about their energy usage; and
- the “Uninterested” (a few respondents only), comprised of professional services organisations for which energy represented a very small part of their operating costs.

Based on their very different starting positions, these groups are likely to have different expectations and requirements from smart metering, which will benefit from being factored into market offerings and engagement strategies.

The study concludes that further action may be needed for the potential benefits of smart metering to SMEs to be fully realised, both in relation to communication and awareness-raising, and the development and provision of appropriate products and services to SME customers.

[6]DECC’s separate Non-Domestic Buildings Energy Use research project, which will survey a large number of businesses in order to quantify the scope for energy abatement and to understand the barriers and facilitators of energy abatement will provide further information in 2014 https://www.gov.uk/government/publications/decc-non-domestic-building-energy-use-project-phase-1

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1. Introduction

1.1 Background to the research

The Government has mandated the installation by energy suppliers of smart energy meters in all domestic and smaller non-domestic premises by 2020 – this is anticipated to cover around 53 million meters. Smart meters will be installed over two implementation phases: the Foundation Stage, which began in April 2011; and Mass Roll-out, which is planned to begin in Autumn 2015 and be completed in 2020.

The Department of Energy and Climate Change (DECC) is gathering evidence during the Foundation Stage of the Smart Metering Implementation Programme about how to ensure smart meter benefits are realised. To this end, DECC commissioned qualitative research with small and medium sized businesses that would be affected by the upgrade to smart meters. This project explored their awareness, understanding, experiences of and attitudes towards smart energy meters and smart energy products and services. In order to meet the research objectives, a sample of SMEs with smart meters, and a sample of SMEs without smart meters, were recruited and interviewed.

In the non-domestic market, energy suppliers are already required to ensure that, by April 2014, energy supplied to larger electricity sites (defined as those within profile classes 5-8[7]) and larger gas sites (defined as those with consumption above 732MWh per annum) is measured by an 'advanced' meter. Since April 2009, advanced metering has also had to be provided where a meter is newly installed or replaced. The smart meter roll-out for the non-domestic sector will focus on remaining, smaller sites – those in electricity profile classes 3 and 4, and those with gas consumption below 732 MWh per annum.

The Government mandate defines a smart meter as one that is compliant with the Smart Meter Equipment Technical Specification (SMETS) and has a specified range of functions including 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. The exception to this is in smaller non-domestic sites where advanced meters may remain in place for their lifetime if they were installed before April 2016 (or if contracts to install meters were in place before April 2016). 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, some advanced meters installed in smaller non-domestic settings may have many of the additional functions found in a smart meter that meets the Government's technical specification.

For the purposes of this research a 'smart meter' was defined as an advanced meter with many, but not all, of the additional functions found in a smart meter that meets the Government's technical specification.

Some suppliers are already installing smart or advanced meters during the Foundation Stage of the programme. By June 2013 there were 520,000 advanced meters operating in smaller non-domestic sites across Great Britain - the vast majority being electricity meters.

[7] http://www.elexon.co.uk/knowledgebase/profile-classes/

The latest impact assessment (January 2013) projected energy saving benefits for the non-domestic sector of £1.75bn. It is expected that the realisation of these benefits will be supported by the market providing supporting energy management products and services. Small and Medium Sized Enterprises (SMEs) will need to understand smart meters and the opportunities they bring and take action to reduce their energy consumption.

Provisions on data access from smart meters are designed to ensure that customers have easy access to their data and can obtain added value services from their suppliers or third party providers. Energy consumers will have a means of accessing both half hourly consumption data stored on the meter (currently for 13 months), and the more frequent (<10 second for electricity, 30 min for gas) consumption measurements made by the meter: the former will be available both in the premises and (via the DCC[8], where the supplier uses DCC services) to authorised third parties; the latter within the premises via an additional Consumer Access Device (CAD), where the customer chooses to use one, from which data can be sent via existing broadband to third parties. Where they have installed advanced meters, suppliers are required to give customers timely access to half-hourly electricity and hourly gas data; the level of detail obtained by a customer will ordinarily depend on his contract.

The Department of Energy and Climate Change (DECC) wished to carry out qualitative research with small and medium sized businesses who would be affected by the upgrade to smart meters to broaden its evidence base in this area. This project explored their awareness, understanding, experiences and attitudes towards smart energy meters and smart energy products and services. The findings will widen DECC's evidence base, giving the Central Delivery Body[9], suppliers and other stakeholders better information on which to formulate an effective and targeted strategy for engaging smaller businesses over the coming years.

The research did not include smaller non-domestic sites occupied by larger multi-site businesses and public sector organisations, which - although within the scope of the roll-out - have different characteristics and requirements. Many of these will already be receiving the benefits of smart or advanced metering as part of organisation-wide roll-outs, and there is a relatively well-developed market for energy feedback services for such organisations; there is therefore believed to be greater confidence around the delivery of benefits for this part of the non-domestic market.

1.2 Objectives

The specific aims and objectives for this project are:

- Exploring the awareness and understanding of smart meters as well as any related products and services;
- Assessing the views of energy management more widely (for example, renewable energy, Demand-Side Response (DSR));

[8] The communications and data transfer and management required to support smart metering is to be organised by a new central communications body – the Data and Communications Company ("the DCC").

[9] The Central Delivery Body was set up in June 2013 to deliver consumer engagement to support the roll-out of smart meters. It has an obligation to extend engagement aimed at the domestic market to the non-domestic market where cost-effective to do so.

- Identifying and understanding any perceived (and actual) benefits associated with smart meters, including around data access and potential market developments;
- Exploring views about and usage of different types of feedback service;
- Understanding the customer journey that current users went through in getting their smart meter;
- Assessing the extent to which those who already have smart or advanced metering are utilising the services available;
- Exploring any actions taken as a result of feedback from the smart/advanced meter;
- Identifying and exploring the barriers to having smart metering installed; and
- Exploring information requirements of both users and non-users of smart meters.

1.3 Methodology

Ipsos MORI carried out qualitative research through a series of face-to-face in-depth interviews with owners or senior managers of SMEs. More specifically, interviews were conducted with the person responsible for decisions about energy management, supply and metering. The interviews took place between 22 April and 21 June 2013.

In order to meet the objectives, a sample of SMEs with smart meters, and a sample of SMEs without smart meters, were recruited and interviewed. Respondents were recruited in two ways:

- Respondents with a smart meter – contact details for some customers with smart meters were provided by a major energy provider. For the purposes of this research a 'smart meter' was defined as an advanced meter with many, but not all, of the additional functions found in a smart meter that meets the Government's technical specification. All were sent an introductory letter explaining the research. SMEs on the sample were then contacted by telephone to ask them to take part.

- Respondents without a smart meter – organisations were 'free-found' by Ipsos MORI recruiters going into businesses and asking if they would be willing to take part.

In addition, attempts were made to find SMEs who had received a smart or advanced meter via third party energy services providers rather than through energy providers. Contact details were provided but none were within the scope of this project because their energy use was too high.

Ipsos MORI agreed recruitment criteria in advance with DECC. To match the profile of customers covered by the mandated roll out of smart meters in the non-domestic market, all respondents were required to have a Profile Class 3 or 4 electricity meter and to ensure we were covering the views of SMEs and to exclude large multi-site operations, only businesses with fewer than 250 employees were included. In addition, businesses with a mandated half-hourly supply meter were excluded, which limited the recruitment of manufacturing businesses.

To ensure a good mix of views and experiences were gathered, broad quotas were set on number of employees, tenure and industry sector. While not a formal quota, several respondents operated across several sites, all were small local chains (for example a retailer in Scotland with 10 branches and a hair salon in London with 4 branches) There was also one respondent who ran a number of independent businesses, that is each business had a different commercial remit. In all cases administration was a centralised function with energy supply also managed centrally.

In total, 41 interviews were conducted. The table below shows the profile of the interviewee:

Table 1: Profile of interviews conducted		
	With a smart meter	**Without a smart meter**
Total	21	20
Number of employees <10 10-49 50+	 13 5 3	 9 5 6
More than one operating site Single site	3 18	5 15
Tenure Owner occupiers Tenants	 10 11	 10 10[10]
Fuel Electricity only Electricity and gas	 5 16	 6 14
Sector Manufacturing/Agriculture Charity Hospitality/food service Retail Other (eg professional services, service sector such as hair salons, printers, etc)	 1 3 4 8 5	 1 2 2 4 11
High energy usage industries[11]	7	4

In addition to the information presented in Table 1, three of the respondents interviewed used renewable energy (solar panels).

Each interview lasted around 90 minutes and was recorded for analysis purposes. A 'thank you' of £100 was offered to each respondent for their time.

Two topic guides were developed: one for those with a smart meter; and one for those without a smart meter. This reflected the different focus of the discussions with each type of respondent.

A copy of the recruitment questionnaires, topic guides and stimulus used in the interviews can be found in the appendices.

1.4 Interpreting the results

It should be noted that the sample of those with a smart meter was recruited from a single energy provider. It is possible that customers of other energy providers may have had different

[10] Plus one respondent with different tenures on different sites

[11] For this project we have defined "high energy usage industries" as those which use more energy than average in heating, lighting and/or running essential equipment. Respondents who are so defined include: 3 hair/tanning salons, 2 printers, 2 restaurants, 1 launderette, 1 farm, 1 clothing manufacturer, 1 day care centre and 1 residential care home.

experiences in terms of the way smart meters were promoted and installed, the information provided about the smart meter and the data available to SMEs on their energy usage. This presents a limitation in the way the findings can be interpreted and should be borne in mind when reading this report.

1.5 Presentation of the findings

This report is based on the analysis of the 41 interviews conducted. The project is qualitative in nature, and the respondents were recruited to represent a broad range of views and experiences rather than to be representative of the whole SME market.

We have made comparisons in this report between the views and experiences of different groups of respondents to illustrate the range of opinions and attitudes. These differences should not be read to represent the views of the SME market as a whole but rather as representing the range of views within the market. However, it should be noted that SMEs included in the research showed few differences in attitudes as a result of size, sector or location; where there are differences these are highlighted. There were differences based on attitudes to energy usage and management and these are discussed in the report.

We are very grateful to the individuals and organisations who took part in the research and to the assistance provided by the energy provider and the energy services providers in allowing us to contact their customers.

1.6 Structure of the report

This report contains six sections:

- Executive Summary – which pulls together the key themes of the findings and also contains recommendations drawn from the findings;
- Section 1, Introduction – which provides details of how the project was designed and run;
- Section 2, Context to the Findings – which provides details of the SME market in terms of their energy usage patterns, switching behaviour and perceptions of energy providers and brokers;
- Section 3, Energy Management – covering attitudes to and practices of energy management as well as SMEs' perceived barriers to energy management;
- Section 4, Smart Meters – including awareness of the technology, sources of information, SMEs' experiences of smart meters and the benefits SMEs believe that smart meters offer; and
- Section 5, Conclusions – where Ipsos MORI draw some initial conclusions from the research findings

1.7 Glossary of terms

Term	Definition
Advanced meter	In smaller non-domestic sites, advanced meters may be installed as an alternative to SMETS compliant smart meters (see definition of smart meters below) where they have been installed before April 2016 (or if contracts to install meters are in place before April 2016). 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.
Automated DSR	Where the amount of energy provided to specific equipment is reduced at times of peak demand to better manage the national demand for electricity
Energy brokers	Energy brokers provide a tariff search and/or negotiation service. They do not, generally, provide advice on energy management.
Energy consultants	Energy consultants are those organisations which offer advice on energy usage and how to manage/reduce it. They may also offer a tariff negotiation service but this is only part of their offering.
Smart meter	The Government mandate defines a smart meter as one that is compliant with the Smart Meter Equipment Technical Specification (SMETS) and has a specified range of functions including 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. For the purposes of this research a 'smart meter' was defined as an advanced meter with many, but not all, of the additional functions found in a smart meter that meets the Government's technical specification.
3-phase electricity supply	An electrical distribution system using three active conductors. Most residential premises have single phase electricity supply, which provides power at 230V. Three phase electricity supply is used in some larger residential premises and non-domestic premises and provides power at 400V.
In-Home Display (IHD)	A stand-alone unit which displays energy consumption data from smart meters
Time of Use Tariff	Pricing tariff where the cost of energy varies by times of day/levels of national demand

2. Energy use and engagement with the energy market

In order to provide context to the subsequent findings, this section sets out the views of the respondents on energy and the energy market. It looks at their current energy usage patterns, their relationship with their energy providers, their attitudes to switching providers and their perceptions of energy brokers.

2.1 Current energy usage

2.1.1 Current usage

Most respondents saw their energy usage and energy needs as simple. Few respondents were manufacturers or heavy users of energy and most used energy for simple purposes:

- Gas to heat their premises; and
- Electricity to provide lighting and to power office equipment such as computers.

Those respondents who were using more energy were running specific equipment:

- Cookers and large scale fridges or freezers in the hospitality sector;
- Printing presses;
- Sewing and knitting machines at a clothing manufacturer;
- Sun beds, hair dryers and laundry equipment at salons;
- Grain dryers and milling equipment on a farm; and
- Washers and dryers in a launderette.

Most respondents had both gas and electricity supply at their business premises. Most had a single meter for each energy type though several reported having multiple meters. Within the sample multiple meters appeared to coincide with having cheaper weekend or evening rates or where they had a 3-phase electricity supply.

Reflecting their stated purposes for using energy, most respondents reported their energy usage as fairly consistent with little variation in usage across the year, except for seasonal or weather related variation for increased heating costs.

> "We know what the patterns will be when we're open… If there is a fluctuation it's marginal" *Retailer, 10-49 employees, Scotland, smart meter*

Some respondents stated their energy usage was variable; these respondents were mainly in high energy usage industries. The variation they experienced was either related to their business practice (for example a clothing manufacturer who had peaks in production when new fashion collections came out) or was driven by customer demand (for example a bed & breakfast business where guests' electricity usage was not predictable).

2.1.2 Current energy spend

Respondents reported a wide level of variation in the amount they spent on energy and the proportion this represented of their operating costs:

- Reported energy spend ranged from £720 per annum to £45,000 per annum and was largely related to size of company rather than industry sector. The average spend was between £5,000 and £10,000 per annum. Typically retailers and professional services reported the lowest spend, while those who reported the highest spend included a manufacturer/exporter, an importer/ manufacturer/retailer, a chain of hair salons, a chain of shops, restaurants, a fruit and vegetable wholesaler, and a launderette.
- The proportion of reported operating costs ranged from less than 1% to 33%. This was largely related to industry sector: respondents providing professional services generally described the proportion as "minute" in relation to staff salary while those in retail said energy spend represented a larger proportion of their operating costs (although it was from a relatively low spend). It should be noted that it is not clear whether the smallest retailers who reported that energy spend represented the highest proportion of operating costs included staff salary in their operating costs or not.

While respondents did not see energy spend as a major business expense, nearly all stated that they wanted to minimise what they spent. Reducing costs, and interest in ways to achieve this, was a recurring theme in the discussions with respondents.

2.1.3 Payment methods

Payment methods were split between those who paid by direct debit and those who paid on receipt of bill. Direct debits were seen as an easy way to pay and several respondents also mentioned a discount for using this payment method. However, several respondents were unhappy with direct debit payments and reported that they had experienced problems related to this. Specifically, they had had problems where large estimated bills had resulted in large, unexpected payments being taken from their account. While these overly large bills were queried with their energy provider and the issue resolved, respondents stated that this took a long time, and energy providers were not quick to repay the money taken in error. Where this had occurred respondents often said they felt happier paying their bills by cheque, rather than by direct debit, as this gave them control over when payments were made, and allowed them to better manage cash flow.

2.1.4 Attitudes to energy bills

While many respondents mentioned the increasing cost of energy in recent years, most accepted that energy costs were a known and planned for business expense, albeit one they tried to minimise if possible.

Most respondents stated they knew roughly how much their energy bills would be and many had processes in place to record their energy spend so they could spot changes over time. However, most also stated that they did not actively check their bills but simply paid them if the amount was in line with what they expected.

> "If I'm getting electric bills which are consistent with what I anticipated, I probably wouldn't go into depth as to the usage" *Estate agent, 10-49 employees, East Midlands, no smart meter*

Some viewed checking energy bills (and if necessary checking the meter itself) as a simple management procedure and something any small business would do. Others considered it a hassle and another admin task to be done each month. However, most respondents were willing to do this checking in order to have accurate bills.

For most respondents it was important that their energy bills were accurate. There was a distinct difference in attitudes between respondents with and without smart meters. Those with smart meters were generally happy that their bills were accurate while those without smart meters were more likely to check their bills.

Those respondents who had previously experienced unexpectedly large bills were the most likely to monitor energy bills. Indeed several respondents with smart meters reported that avoiding such unexpected bills was a reason for accepting a smart meter when offered one by their energy provider.

Few respondents with a smart meter noticed a difference in their bills when the smart meter was installed. When asked, many stated it was because they had kept track of energy bills before the installation and therefore there were no real discrepancies to adjust. One difference which had been noticed was having fewer meter readings. One participant was concerned that meter readers still visited after the installation of the smart meter and this caused him to question whether his smart meter was working properly.

Overall most respondents felt energy bills were easy to read. The most important information was the amount to be paid; it was clear that many respondents looked only at this. There was evidence that some respondents were confused by the elements of the bill and that others struggled to understand the information and what it told them about their energy usage and costs.

> "[I don't understand] the kilowatts stuff, but the bills themselves are OK" *Charity, 50+ employees, London, smart meter*

> "Generally not all that easy; you have to struggle through it to try and work out how they've come to the bill they have come to ... Beyond a certain amount of usage the price changes and things like that, so yes it is quite complicated" *Care home, 10-49 employees, South East, no smart meter*

> "I think they're almost purposely difficult to read, because there's all sorts of figures rolling around on them, and maybe if you were to sit down and analyse them I suppose they're easy enough to [read]." *Estate agent, 10-49 employees, East Midlands, no smart meter*

There were differences between how providers laid out bills with some clear preferences for how information could be provided:

> "The [small provider bill] is quite good because you turn it over and it says on the back what your use was for the same month the previous year, which I find really interesting and a bit geeky." *Charity, <10 employees, North West, smart meter*

2.1.5 Attitudes to meter readings

Some respondents were happy receiving estimated bills (provided these were in line with their expectations) if it meant not having to read their meter. But, in general, meter reading was seen as a necessary business task in order to avoid estimated bills and the build up of large discrepancies between what was paid for and what was used. Put simply, respondents were happy to accommodate meter readers or to do meter readings themselves to ensure accurate bills.

Some respondents had built recording meter readings into their management systems. Indeed some respondents with smart meters continued to record meter readings after the installation in order to maintain the records. Those respondents who recorded their own meter readings did so because it provided valuable information for cash flow and planning purposes.

Generally meter readings were seen as a hassle where:

- The meter was difficult to get to or there was limited access to the meter;
- There was only one person in the business (especially in retail environments where it could mean leaving customers); or where
- No appointment had been made to read the meter.

Not having to do meter readings was seen as a benefit from having a smart meter. However, some respondents had multiple meters, with a mix of smart meters and non-smart meters, so they did not experience this benefit.

2.2 Switching behaviour

Respondents were asked whether they had switched energy providers in the past or intended to do so in the future. Most respondents had switched provider in the past.

Respondents tended to fall into three broad groups in terms of their switching behaviour[12] with the first group being the largest group and slightly fewer falling into the second and third groups discussed below:

Happy to switch

These respondents were confident to switch providers, and had done so before.

This group was predominantly formed of respondents from the larger organisations interviewed. In particular, it would appear that there are energy brokers who may be targeting the charities sector as most of the charities interviewed had switched energy providers with a broker.

Although the number of respondents is too small to make any definite conclusions, those respondents in organisations with 50+ employees had more specialised roles, allowing them a greater focus on energy management and therefore they felt they have more knowledge to make these decisions about switching energy providers.

> "I task some of my staff – one will have the job of re-negotiating with the existing company or certainly to start off with asking what is the best offer that they've got, and then going off to check with other suppliers ... ultimately we will end up back at the original supplier and say 'OK, you offered us that and this is the best we can get, do you want to keep the business at that price or not?" *Charity, 51-250 employees, North West, no smart meter*

[12] It should be noted that this was a relatively small qualitative project and as such these groups represent loose groupings of respondents rather than a formal segmentation.

Have or will switch but have concerns about doing so

These respondents may have switched providers before or were considering doing so for the first time. They were more nervous about switching than the group above.

This group was mainly from those organisations with fewer than 10 employees and from the hospitality and food service sectors.

> "You might save £10-£20 for the hassle of changing supplier, so I think I'll stick with what I've got unless there's a big difference or they've done something from a service point-of-view that I'm not happy with, which I came close to once with [big provider]." *Restaurant, <10 employees, London, smart meter*

No experience of switching/would not switch

These respondents were the most resistant to switching energy providers and had not switched providers in the past.

This group was mainly from those organisations with fewer than 10 employees and specifically from the retail and professional services sectors. While this group was more likely to have a smart meter than the other groups it was not the smart meter which prevented switching rather the smart meter has removed one of the main triggers to switching – that is disputes with providers over bills.

> It's same whether or not I use [any of the Big 6 providers] – they've all got basically the same infrastructure – but I've been happy with what I've been paying with what service I've ever got off [current provider]". *Retail, <10 employees, Stoke-on-Trent, with smart meter*

This group also included many professional services for whom energy was a very small part of their operating costs. In this case, it was the perceived lack of a significant financial benefit which prevented switching, put simply, the hassle of looking for a better energy deal was felt to be greater than the potential cost saving.

2.3 Perceptions of energy providers and brokers

Respondents were asked about the relationship with their current energy provider and their perceptions of energy brokers.

2.3.1 Relationship with current energy provider

Most reported a distant relationship with their energy provider. Although the quotation below is from a respondent with a smart meter it also summarises the attitudes of many respondents about the relationship they want with their energy provider:

> "I just pay the bills; they just take the money out of my account and they send some guy to read the meter and that's it. I don't need to speak to them" *Restaurant, <10 employees, London, smart meter*

Most were happy with this situation and did not want more of a relationship with their energy provider. Further, most respondents felt little loyalty to their energy provider and many shopped around at contract renewal time for the best tariff.

There was little engagement with their energy provider.

> "What do we expect from our suppliers? We expect for the light to come on and not to be ripped off in essence." *Estate agent, 10-49 employees, East Midlands, no smart meter*

Several mentioned the lack of communications from their provider, and that the only real contact they had was when they came to renew their contract[13]. While this lack of communication was not seen as damaging to the relationship, respondents identified several factors which did impact their relationship with their provider:

- Factors which were seen as having a negative impact on respondents' perceptions of their energy provider included:
  - Disputes over bills were the most mentioned negative factor and the one most likely to have a negative impact on how respondents felt about their energy provider;

    "So it did work out cheaper, but then they kept messing my bills up horrendously, billing me £1,000 a month, like putting in the meter readings incorrectly, so I've left them at the end of the contract." *Clothes shop, <10 employees, East Midlands, no smart meter*

  - Not spontaneously offering the best tariff available at contract renewal time, but simply stating the standard tariff which would apply at the end of their contract. Most respondents felt this reflected the lack of interest providers had in them as a customer and it encouraged them to shop around for the best deal available.

- Factors which could improve perceptions of their energy provider included:
  - A good service experience, described by one respondent as going above and beyond what help they would expect from an energy provider; and
  - Spontaneously offering a good tariff.

Smaller energy providers were seen as more responsive and willing to do more for their customers; larger energy providers were seen as the most distant and offering less customer service.

Several respondents mentioned wanting a different relationship with their energy provider. They described this relationship as similar to the relationship with their "bank manager", that is someone who does not have a sales role but who can advise about energy management and how to control or reduce energy costs.

[13] Most respondents had fixed price contracts with their energy supplier; most appeared to have two year contracts, a few had longer contracts, and a few had annual contracts.

2.3.3 Energy brokers[14]

Awareness of energy brokers was high and many respondents had used their services in the past. It was clear from the comments made by respondents that there are a number of energy brokers targeting SMEs. Both respondents with and without smart meters had used energy brokers, those respondents who were charities were the most likely to have done so – it was not clear whether this was a reflection of their size (see the section on switching behaviour) or due to activity by energy brokers specifically targeting the charitable sector.

Respondents held mixed views of energy brokers. While they perceived the idea of receiving a good deal on their energy supply as attractive, most respondents found the number of phone calls they received from brokers a nuisance. It was not clear from the comments made whether these were repeated calls from the same broker or whether there were numerous energy brokers competing for the same business.

While receiving calls from brokers was viewed as a nuisance, it did also raise awareness that there were deals to be negotiated. Several respondents stated reluctance to use companies about which they had limited knowledge. While the phone calls had made them aware of this service when they decided to use such a service they searched the internet to find out about several brokerages before deciding who to approach.

> "I'd rather go and pick the broker and have instigated it; I don't want cold phone calls."
> *Clothes shop, <10 employees, East Midlands, no smart meter*

Other respondents who had used brokers mentioned that they had been introduced to the broker by people they trusted.

For some respondents who had been contacted by brokers and were interested in taking the discussions further, the reported reluctance of brokers to commit details to emails (so that the respondents could peruse at their convenience) was an issue.

A couple of respondents mentioned that they preferred to deal directly with the energy providers when negotiating rates – thus cutting out the "middle man". Many expressed similar opinions about comparing tariffs and finding good deals themselves rather than using energy brokers. The most frequently mentioned methods were internet searches, comparison websites and phone enquiries to energy providers. A final barrier to using energy brokers for some respondents was the time taken to explain their business and energy needs, although they acknowledged that the very purpose of the broker was to save them time in searching for the best deal.

Underlying all these attitudes was the feeling expressed by most respondents throughout the interviews that in a small company there are few people to share any administrative burden, further in a small company there is little revenue to buy in expertise. As a result, the respondents consistently expressed the view that necessity required them to have many roles and broad responsibilities. They simply did not have the resources to allow them to buy in specific services and skills. Many assumed that as their business model was simple then resolving problems would also be simple and therefore they would not need help. Others felt

[14] Energy brokers provide a tariff search and/or negotiation service. They do not, generally, provide advice on energy management.

that nobody could understand their business needs better than themselves and therefore they were not willing to spend time – as well as money – for others to learn what they already knew.

3. Energy management

This section covers SMEs' attitudes to energy management, what they consider to be energy management and how they go about managing their energy use. It also explores SMEs' attitudes to energy consultants and the perceived barriers to energy management.

3.1 Attitudes to energy management

Most respondents felt that they were managing their energy use as well as they possibly could. This reflected their views that their energy use was simple and that they had reduced their energy costs as much as possible. Energy management was perceived by respondents as essentially a cost reduction exercise. That is, the trigger to reducing energy use was the related savings on energy bills rather than an active consideration of how to reduce the amount of energy used in their organisation. Most were willing to manage their energy use, within this constraint.

When reviewing their attitudes to energy management three distinct groups emerged among the respondents as shown below[15].

The largest group by far was those who felt they were doing as much as they could – we describe these as the **"Trying" group**. While this group felt they were doing as much as they could they also acknowledged that this was relatively little.

> "There is not an awful lot we can do other than tinkering at the edges" *Care home, 10-49 employees, South East, no smart meter*

But they also felt that doing more to reduce their energy use would be cost prohibitive given their small energy spend, and therefore small potential savings from implementing changes compared to the large capital expenditure.

> "There's not a lot more you can do without major investments in the form of a new heating system which would be marginally more efficient. It's all about returns" *Retailer, 10-49 employees, North East, smart meter*

This group were curious about their energy use and would be interested to see their energy use patterns but did not believe that it would reveal any possible, cost-effective ways of reducing their energy use.

There were a small number of **"Advocates"** among respondents. These respondents were the most interested in having and using data about their energy usage, they were also the most likely to have renewable energy sources and to be actively looking at their energy usage. For example, several had installed motion sensors to turn off lights when nobody was around and several had solar panels to supplement electricity use. This group was also the most aware about climate change and environmental issues generally, and this appeared to be the trigger for their interest in energy management. For one respondent (a farmer), while personally

[15] It should be noted that this was a relatively small qualitative project and as such these groups represent loose groupings of respondents rather than a formal segmentation.

committed to saving energy their primary interest in knowing their patterns of energy use stemmed from their future legal requirement to calculate the carbon footprint of the farm.

The final group, the **"Uninterested"**, was also small and was comprised of professional services organisations for which energy represented a very small part of their operating costs. As they saw little financial incentive to reduce energy spend they were also uninterested in managing their energy use. As a result they were also less interested in seeing their energy use data.

> "If it's not going to save you money what's the point of understanding your energy usage." *Chartered surveyor, <10 employees, East Midlands, no smart meter*

3.2 Energy management practices

Respondents were asked whether they felt they were actively managing their energy use or not. Many respondents felt they were taking active steps to reduce energy use, although others also said it was not a priority for them. However, when asked to describe how they had reduced energy spend it was clear that, irrespective of whether respondents felt they were actively managing their energy use, the actions which respondents said they were taking were the same. Among respondents, active energy management was more a difference in perception than a difference in actions.

For both groups the greatest trigger to managing energy use was reducing energy bills, even where energy use was low most had still taken some actions to minimise this cost. When asked what steps they were taking their responses fell into a number of themes:

- Doing the easy stuff, this included:
  - installing low energy lighting where possible;
  - not using electric heaters to supplement gas central heating; and
  - turning the thermostat down a little.
- Encouraging behaviour change among staff, this included:
  - turning off lights/computers/equipment at the end of the day or if not in use; and
  - for a few respondents it also meant shifting processes to cheaper tariff times.
- Using more energy efficient equipment, which was seen as:
  - seeking the most energy efficient models when replacing old equipment: "The only way that I can reduce energy consumption is use more efficient machines; I can't turn anything off." *Launderette, <10 employees, West Midlands, smart meter*

    Most respondents felt that advances in technology meant new equipment was more energy efficient and therefore by buying the most cost-effective new equipment they were, by default, improving their energy efficiency. However, respondents would not update existing equipment if it was still usable – it was only at the point of replacement that upgrades were investigated;
  - installing motion sensors to control lighting and other equipment, to automatically turn off when nobody was around ; or
  - For a few respondents, the use of renewable energy sources (principally solar panels).
- Shopping around for the best energy tariff: while this could not strictly be defined as energy management or reduction, for most respondents this was seen as part of their energy management. All were aware of energy costs and any clauses in their energy contracts and it made simple sense to respondents to seek the best tariff when contracts were up for renewal.

3.3 Barriers to energy management

There were a few respondents who felt they took no action to control their energy use, but all felt there was a limit to what they could reasonably do to manage their energy use.

When asked what prevented them from managing their energy use better, the most frequently mentioned barriers were:

- Respondents felt they were already doing what they could to reduce energy costs and consequently energy use; and
- Further, where energy expenditure was a tiny proportion of their operating costs and hence any costs savings would be minimal, respondents felt active energy management was not worth the effort. These respondents tended to be service sector organisations with fixed and non-varying energy costs.

  "I can't change my hours [and benefit from off peak tariffs] and I am not going to sit here in the cold" *Recruitment agency, <10 employees, North West, no smart meter*

- Lack of time was also mentioned as a barrier. Energy management was always part of a much wider range of job responsibilities for respondents, and was one that only a few respondents felt should take precedence over other business priorities given the common perception that the financial benefits were relatively small.

  "With a business of this size we can't afford to have an office manager who could then do all of this; when you're trying to manage your own work and do this as well there comes a point where you can only do so much." *Chartered surveyor, <10 employees, East Midlands, no smart meter*

- Persuading staff of the need for or benefits from saving energy was mentioned as a problem. This problem was greater in organisations with 10 or more employees. They felt their staff had few incentives to reduce their energy use, by turning off computers fully at the end of the day, or turning off lights when not using an area.

  "There is wastage and unfortunately you've got to rely on the staff; it's not their money and it's very hard" *Care home, 10-49 employees, South East, no smart meter*

  "It's difficult to encourage everyone else to join in because they're not paying the bills; if it was their own home they would do it but here they don't see the benefits." *Chartered surveyor, <10 employees, East Midlands, no smart meter*

- Some respondents stated they saw little financial benefit in doing more to reduce their energy use, while there were actions they could take these were seen to involve too large a capital outlay or to show too little return on investment.
- Some respondents with varied energy use also mentioned the lack of control over when energy is used. For example, the bed & breakfast where customers could chose to have the TV on all night.
- One barrier was mentioned purely by those who rented their business premises and related to improvements to the physical structure. Most tenants felt that neither their landlord nor their own organisation had any motivation to improve the building's energy efficiency and therefore these improvements were not made. Tenants felt that landlords believed the improvements would not generate more rental income and therefore there

was no incentive to do the work. From the tenant's perspective their leases were too short to allow real return on the investment for improvements requiring capital outlay, especially if they had to negotiate with the landlord to be allowed to make the improvement.

Among respondents in the "Trying" and "Advocates" groups, the first three factors were the most frequently mentioned barriers; among the "Uninterested" group the 4th and 5th factors were key. But by far the greatest barrier for all was the perceived lack of financial benefit.

> "The fact that it's literally only 2% means that it's not a big concern. If our electricity was costing us £10,000 a year we'd probably be thinking 'how can we reduce that, do we need this on?'…" *Construction company,10-49 employees, North West, no smart meter*

3.4 Energy management advice

Respondents were asked how interested they were in receiving advice about energy management, who they thought would provide such advice and who they thought would benefit most from this advice

3.4.1 Interest in energy management advice

Few respondents were interested in receiving advice about energy management. The main reason for this lack of interest was because they felt there was little more they could do as their energy usage was already very low and they saw few cost-effective ways in which it could be reduced further. This reflected their views about energy management more generally.

Several respondents mentioned that any advice that was given would need to be relevant and tailored to their organisation. They viewed the generic advice sent out with bills as telling them nothing more than they knew (and did) already. Further, they felt this advice was often aimed at the domestic market and therefore irrelevant to their circumstances.

Some respondents were interested in receiving energy management advice, although there was concern about the cost of implementing any recommendations.

> "I think we probably could benefit from an energy survey being undertaken, looking at the whole business and how it actually works, and then seeing what would need to be spent to implement those changes. If there's a high cost involved we would then need to go and seek funding to enable us to undertake any updating or whatever." *Charity, <10 employees, North East, smart meter*

3.4.2 Who would benefit from energy management advice?

When asked who they believed would benefit, respondents mentioned businesses associated with high energy usage, specifically the following types of organisations:

- Large companies;
- Manufacturers or those with the ability to shift processes to take advantage of cheaper night time tariffs;
- Those with multiple sites who would benefit from centralised monitoring of energy use and purchasing of energy; and

- Farmers – mentioned by the respondent who was also a farmer.

> "It would be different maybe if you had a factory [or] we were using a massive amount of energy but our energy consumption is not massive compared to other types of business" *Retailer, 10-49 employees, Scotland, with smart meter*

3.4.3 Who should provide energy management advice?

There were contradictory opinions about energy providers as the source of advice on energy management.

Energy providers were mentioned most often as the expected source of advice about energy management. For most of the respondents their energy provider was their only link to the energy market and they were not aware of the presence of energy consultants who could provide information about energy management. Further, the larger providers are well known and therefore are more likely to be a trusted source of information. As such the energy providers were seen as the natural provider of advice.

> "[Large provider] have been around for a long time, they need to educate people" *Hardware store, <10 employees, West Midlands, smart meter*

Energy providers were also seen as the most likely to have information about the respondent's energy consumption patterns and therefore were in the best position to provide tailored advice on how to reduce usage.

However, many respondents felt energy providers had a vested interest in keeping energy consumption and prices high in order to protect their revenues. Many participants also had negative views about energy providers which were reflected in their opinions on receiving energy advice from this source.

> "I wouldn't want my supplier to do it because they're the ones who would take regular money from me, and I don't think they'd fully tell us how to save money." *Charity, <10 employees, North West, smart meter*

3.4.4 Energy consultancy services[16]

Awareness of energy consultants was low, and few respondents had heard of the services they offer. Among those who were aware, their sources of information were indirect:

- One respondent, a chartered surveyor, had a client who was an energy consultancy;
- One had a brother who worked as an energy consultant; and
- One had worked in the energy industry before setting up his own retail business.

Those respondents who were aware of energy consultancy services were interested in the energy management advice which consultants could offer. Specifically, they were interested if this advice could save them money, save them time (in searching for the solution themselves),

[16] Energy consultants are those organisations which offer advice on energy usage and how to manage/reduce it. They may also offer a tariff negotiation service but this is only part of their offering.

provide them with a better understanding of their energy consumption and bills (again as part of managing their energy costs better) or could help in their personal commitment to make their organisation greener. Their interest was mainly around understanding the performance of individual pieces of equipment rather than overall energy consumption; this would require a more sophisticated energy review than could be provided by a simple analysis of energy use patterns.

However, respondents also felt that energy consultants believed SMEs were too small to be an attractive market and that SMEs spent too little on energy to make a commission based service attractive to energy consultants. Equally, SMEs were unwilling or unable to pay a consultancy fee for this advice.

> "If I've got to pay you a fee I've got to reduce my costs by quite a tidy amount so I can afford your fee" *Private members' club, 50+ employees, London, no smart meter*

Generally there was little interest in having external access to these services. A recurring theme underlying the comments made by respondents was their lack of understanding of what is meant by the term energy management and their perception that saving cost was the main means of managing energy. This perception was reflected in their attitudes to specialist energy advice services.

> "They'll waste some of my time, probably not save me much money" *Private members' club, 50+ employees, London, no smart meter*

3.4.5 Benefits of energy consumption advice and barriers to its use

Generally, respondents found it difficult to see how small businesses with little variability in their energy consumption could benefit from this type of advice. Partly this disinterest stemmed from a lack of awareness that such advice was available. As mentioned above very few were aware of energy consultants or for those with a smart meter that energy management advice was available through their energy provider's advice service. When made aware that advice was available there was some interest in this service although more remained sceptical that they would see a real (cost saving) benefit as a result. The perceived benefits of energy consumption advice were:

- Saving money – this was the most mentioned benefit, although its attractiveness was tempered by the fact such savings would be larger for organisations with higher energy spend and could be marginal for small companies;
- Having a better understanding of energy consumption patterns and the information on their bills; and
- Being greener – this was a key selling point for a small number of respondents.

The main barrier to interest in energy consumption advice and managing energy use was cost, specifically the value for money of such advice:

- Paying an upfront fee – respondents saw the potential saving to themselves as very small (in view of their relatively small spend on energy) and therefore it would take too long to recoup the consultancy fee; and
- Consultants working on commission – respondents felt the potential level of commission was too low (again reflecting their relatively low energy spend) to be attractive to consultants.

Few respondents would be willing to pay for energy management advice, and their interest in using a service was reduced considerably by the expectation that they would have to pay for this advice for little perceived benefit to their company.

There was also concern about how relevant the advice given by consultants would be:

> "I want to analyse it myself because I understand my business' needs more than anyone external would" *Hair salon, 50+ employees, London, no smart meter*

4. Smart Meters

This section covers SMEs' awareness of smart meters and their actual and preferred sources of information. It also discusses perceived benefits of and interest in having smart meters as well as the experiences of smart meters customers and the level of interest in the data available from smart meters.

4.1 Awareness of smart meters

4.1.1 Levels of awareness

Respondents had a limited awareness of smart meters and the benefits they offer; awareness of smart meters generally was lower among the smallest organisations interviewed. There was a general perception that smart meter technology offers more benefits to larger companies where their energy use was greater. Even those respondents with a smart meter had little awareness of the features and benefits offered by their meter.

4.1.2 What is a smart meter?

Most respondents with a smart meter had little understanding of what a smart meter was, while they were aware the smart meter was an upgrade on their previous meter they were not aware of how the functionality might differ.

> "It was installed and that's all I know which is terrible; I don't actually know what it does. I don't know if that's me missing the point or them not telling us, but it's in the cellar, I've never studied it and I don't know what it does" *Charity, <10 employees, North West, smart meter*

The most commonly mentioned smart meter feature was real time information being available to energy providers. There was some knowledge that this would result in more accurate billing to customers and, to a lesser extent, fewer manual meter readings being done.

> "I have heard of them but I don't know a lot about them, but I presume these are meters that give constant readings to the supplier online and they're live, but beyond that I don't know anything" *Care home, 10-49 employees, South East, no smart meter*

There was little awareness of the energy consumption information that could be available to customers and most respondents did not see how smart meters could help them to reduce energy consumption.

Most respondents felt that smart meters offered more benefits to the energy providers than to customers.

4.2 Perceived advantages and disadvantages of smart meters

Respondents with and without smart meters were asked what they thought were the advantages and disadvantages of smart meters. Respondents were given the opportunity to spontaneously mention any advantages or disadvantages they saw. They were then prompted with general

themes (such as “technology” or “security”) to gain a broader understanding of whether they saw any advantages or disadvantages in these areas.

Most respondents agreed that smart meters offered benefits. Those with a smart meter were more likely to mention advantages while those without were more likely to say they felt smart meters did not bring any advantages. Similarly, those respondents without a smart meter were more likely to mention disadvantages, while those with a smart meter were more likely to say that on the basis of their experience of the meters they saw no disadvantages. The most frequently mentioned advantages and disadvantages are shown below.

Table 2: Perceived advantages and disadvantages of smart meters

Advantages	Disadvantages
Accurate billing	Mechanical faults/issues
No more meter readings	Disruption during installation
Tracking energy patterns	Potential costs
Money savings	No ability to act on the data generated

4.2.1 Perceived advantages

The main perceived advantages were:

Accurate billing was, by far, the most frequently mentioned advantage, irrespective of the type of meter respondents had. For those without a smart meter this was often the only advantage they could envisage. Accurate billing was felt to ease respondents’ cash-flow and enable them to plan their finances.

Accurate bills were also seen to reduce the potential for disputes with respondents’ energy providers, especially so for the respondent who was a property manager with many sites and tenants to manage.

The advantage of accurate bills was diluted for those respondents without smart meters who actively checked their bills against their meter readings.

Putting an **end to meter readings** was the second most frequently mentioned advantage of smart meters; this was often mentioned in conjunction with accurate billing both by those with and without smart meters. Stopping meter readings appealed to many respondents for various reasons:

- Fewer disruptions to their normal business practice caused by the meter reader coming to physically read the meter;

> “Yes, there are benefits, [meter readers] don’t have to come and disturb us; they do their readings online or whichever method they’re going to use; we don’t have to see

> a guy waiting out there and wondering what he wants; we don't have to worry about somebody just walking in and going straight to the meters – yes there are benefits of that in terms of our security and health & safety." *Private college, 10-49 employees, East Midlands, smart meter*

- The necessity of doing their own regular meter readings would be eliminated; and
- It was one less administrative task to do.

> "I suppose it'd just be another weight off my mind, something else I've not got to bother about so that's always good." *Clothes shop, <10 employees, East Midlands, no smart meter*

The ability to **monitor and track energy patterns** was also seen as an advantage of smart meters. While no respondents with smart meters were using this benefit, respondents both with and without smart meters felt that consumption data would enable them to track energy patterns using the meter's historical data to set targets on how to reduce usage or better manage their energy consumption.

> "[The advantages] are showing me the peaks and troughs maybe, and if it's highlighting peaks is there anything we can do to reduce the actual cost" *Charity, <10 employees, North East, smart meter*

> "It would be amazing to have actual readings all the time and then we could know for sure how much energy we were using month-on-month … if we had actual readings every month we might actually start to chart our usage and see if we can hone in on what might be causing ups and downs". *Hair salon, 50+ employees, London, no smart meter*

Several respondents mentioned the immediacy of the data on energy usage as adding to this advantage.

> "If I can look at it on a regular basis and say this week our consumption was high, then at least I can look at that and think why, and go back and see if I can analyse and find out why and if we could avoid it and things like that, it'd be relatively easy to do". *Care home, 10-49 employees, South East, no smart meter*

Monitoring energy usage was less likely to be seen as an advantage by respondents who felt they were already doing everything they could to reduce their energy usage, those who felt they did not have time to look at the energy consumption data or where energy expenditure was a very small part of operating costs.

Respondents without smart meters were more likely to mention **saving money** as an advantage of having a smart meter.

> "It's only the fact that I can probably save money is attractive to me." *Importer/wholesaler, <10 employees, North West, no smart meter*

These cost savings were seen as the result of monitoring usage, identifying patterns and hence cutting down on energy where possible.

There was also an assumption that energy providers would cut down costs because they would no longer need meter readers and that these savings would be passed on to the customer.

Other advantages mentioned by only one or two respondents were that smart meters would:

- Be more efficient than the normal meter;
- Be less likely to encounter faults;
- Prevent energy fraud/theft;
- Always offer correct readings;
- A means through which the respondent could verify their bills; and
- Bring environmental benefits.

In all, many respondents felt that the advantages of smart meters – beyond accurate billing – favoured the energy provider rather than customers. Respondents believed the business efficiencies for energy providers far outweighed the perceived benefits of having information about their energy usage patterns (which most felt would not help their business).

4.2.2 Perceived disadvantages

Many respondents found it difficult to identify any disadvantages, especially those respondents with a smart meter.

> "Presumably if they work properly and they don't have any problems with them, I don't see any disadvantages". *Care home, 10-49 employees, South East, no smart meter*

Several respondents without smart meters mentioned **technical factors** related to the mechanisms of the smart meter and their reliability, this was mainly related to the accuracy of the readings produced.

> "How do you know if it's accurate? How do you know if the reading is an actual reading?" *Charity, <10 employees, North West, smart meter*

> "The main issue is are there any factors that may affect the meter; we know it's a digital meter that they're going to install, so what is the accuracy level of those digital meters, and mechanical devices they tend to work on a certain timed basis, but digital meters don't work on those specific grounds do they?" *Private college, 10-49 employees, East Midlands, smart meter*

> "However, there is the risk of automating everything too much, taking out any kind of human being getting involved in the process makes me slightly nervous… Computers do make mistakes as well, processes do fail". *Hair salon, 50+ employees, London, no smart meter*

Some respondents felt that smart meters were a means of continuously monitoring SMEs. They likened this to a "Big Brother" feeling, with which they were uncomfortable.

A few respondents were concerned with having their energy supply cut off remotely.

Some respondents without a smart meter were worried about **disruptions during the installation** process and the problems this could cause to their business.

Participants without smart meters were likely to mention **cost** as a barrier to having a smart meter. They were unsure whether there would be an upfront cost for the smart meter or whether the cost would be recouped in their energy bills. Some of them also anticipated a cost for installing the smart meter; should this be the case they would be less likely to have one installed.

> "The cost of installation, I guess at some point will be added onto my bill, and the cost of additional services I suspect, will have to be paid by me won't it." *Chartered surveyor, <10 employees, East Midlands, no smart meter*

A few respondents without smart meters felt that having **access to usage data by itself was not enough**; they wanted extra advice on how, when and where to use the data. They felt bills would still need to be studied on a quarterly/monthly basis and they were unsure whether it was worth having someone to do this monitoring.

> "A smart meter doesn't really tell you what each piece of information is; you learn that as you have to work with the information. … So smart, but not necessarily smart for the user, smart to the provider". *Construction company,10-49 employees, North West, no smart meter*

There were other disadvantages mentioned by only a few respondents:

- Smart meters do not last as long as normal meters – specifically with reference to the 10 year life span presented in one piece of stimulus material;
- The perception that a smart meter would tie them to a certain energy provider, preventing them from switching or causing inconveniences when switching; and
- A couple of respondents empathised with meter readers losing their jobs.

4.3 Interest in having a smart meter

Those without smart meters were asked about their interest in having one installed for their business. There was little or no active resistance to the idea of having smart meters installed, other than a general apathy amongst some respondents towards energy management in their businesses. Further for many respondents smart meters were seen as not being particularly different to traditional meters (in terms of the advantages offered), and therefore many respondents without a smart meter had little objection to their meter being upgraded.

> "It's not something we'd send away, but equally I don't think we'd leap out and say we must have one because I don't see it's going to be a tremendous benefit to us." *Construction company,10-49 employees, North West, no smart meter*

However, some respondents were positive towards smart meters; they saw no disadvantages even if the advantages offered were seen as fairly minor, such as accurate bills and not having their meters read. As a result, they would be quite happy to have a smart meter installed in their business. Indeed for some, having a smart meter installed was simply seen as a way of modernising and making use of the available technology:

> "I think we could probably save on energy consumption. It'll give us the impetus to do it … and it'll make it something that we would be interested in trying to do" *Care home, 10-49 employees, South East, no smart meter*

> "If it makes things easier and we can understand it [energy consumption leading to cost savings], hopefully we'd be getting more accurate readings, not the estimated. And, it brings us up to date" *Construction business, 10-49 employees, South East, no smart meter*

A number of respondents with a smart meter said they would not recommend smart meters to other businesses, not because they thought there were any particular disadvantages, but simply because they had not made any positive differences.

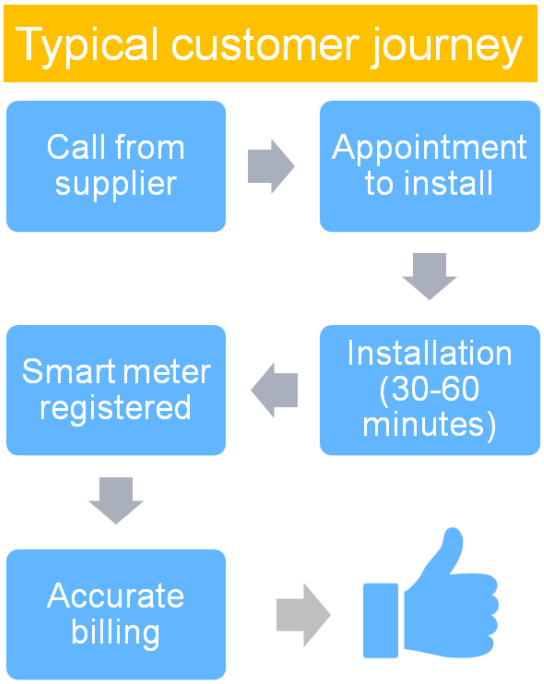
4.4 Experience of having a smart meter

4.4.1 Impact of having a smart meter

Those with a smart meter generally felt the upgrade had made little or no difference to their business; however these respondents were not aware that their smart meters could provide usage data and therefore were not fully using the smart meter functionality. Those who felt having a smart meter installed *had* made a difference focused on the benefits associated with accurate billing, such as having more control over the business' cash flow, and not having to phone up with meter readings.

4.4.2 The decision process

For those with a smart meter, most were simply informed by their energy provider[17] that their meter needed to be upgraded. That is they did not make a positive choice about whether or not to have a smart meter installed. None of the respondents we spoke to refused to have a smart meter installed.



One respondent had been recommended a smart meter by their local electrician, who installed the meter himself as part of a rewiring process. However, this was the only example of an occasion where the smart meter installation had not come about through a proposed upgrade from energy providers.

One respondent shared the wording of the letter she had received from her energy provider about the upgrade:

> "Due to industry commitments we are required to exchange the meter when it reaches the end of its expected life" *Energy provider letter to respondent, Charity, <10 employees, North West, smart meter*

[17] We would point out that the sample for those with a smart meter came from one energy provider only and therefore the findings here may reflect the situation with this one energy provider rather than the experiences of SMEs who buy energy from other providers

Most accepted this reason for their upgrade.

> "It's the way ahead, it wasn't costing you any more, so why not?" *Information and communication business, 10-49 employees, Scotland, smart meter*

For the few respondents who felt as though they had made an active choice, the reasons they chose to have a smart meter was that it offered:

- The latest technology;
- More accurate billing; and
- Automatic meter readings.

4.4.3 Installation

For most respondents, the installation process proceeded relatively smoothly, with limited disruption and inconvenience for businesses. The time period where the business was without electricity was seen as manageable and most had received warning that this would occur in advance.

A few mentioned issues at installation, which included:

- An installer having to spend a long time on the phone registering the meter;
- A fault with an installation process that left the business without electricity until the next day;
- An installer arriving at the wrong time which was inconvenient for the business;
- An installer leaving a mess behind after the installation process;
- Continuing to receive estimated readings for a period of 6 months after the smart meter was installed; and
- Continuing to have the meter read in spite of accurate readings being sent to the energy provider.

There were no reports of installation engineers making any attempt to sell additional services to the businesses in this sample. Very few respondents reported being shown at the time of installation how to access their smart meter data and none reported any follow-up contact from their energy provider. It was clear from comments in the interview that while respondents were happy at the time, with hindsight they would have liked to be told more about their smart meter at the time of arranging for or actually doing the installation.

4.5 Using data from the smart meter

The interview process made clear to respondents that information about their patterns of energy use was a feature of smart meters and that this information was available to the customer as well as the energy provider. Respondents with and without smart meters were asked about their interest in using the data gathered by smart meters, how they would like to access such data and what would prevent them from doing so.

4.5.1 Interest in using the data

It should be stated at the beginning that few of the respondents with smart meters were aware of the full functionality of their smart meter. Further, awareness that their meter, or smart meters

generally, could provide half-hourly data about energy consumption was low. As a result no respondents were using the data available from their smart meters.

> "I wasn't aware that you could get anything off that meter other than the reading" *Printer, 10-49 employees, West Midlands, smart meter*

Most respondents were interested in seeing the data on their energy usage from a smart meter, although for most this was curiosity rather than a desire to have regular information to monitor or manage their energy use. Some respondents who were interested still felt that there would be little benefit for their own organisation in seeing the data because they could not change their existing patterns of business just to save energy.

For the few respondents who were not interested in seeing the data, this was because they felt there was nothing they could do to reduce energy usage and therefore looking at the data would bring no benefits.

For some respondents seeing the data would be a one off investigation so that they could understand how their energy usage varied across typical working patterns rather than regularly looking at the data. But there were also a number of respondents who said that the data would become part of their regular management information.

> "Information is now power so the more information I can have to base my decision on the better." *Charity, 50+ employees, North West, no smart meter*

Once again the potential for cost savings was a major factor in respondents' interest. These cost savings could come either from:

- Understanding which equipment used most energy, thus allowing them to see which equipment they should use less or at least be aware of the differences between the energy drawn by the different pieces of equipment; or
- Using the data as a source of information to negotiate a better tariff from energy providers.

For several respondents the data was only of interest if it was free of charge, although two respondents said they would be willing to pay if the data proved useful to their organisation.

Interest in regularly accessing the data was greater among those who did not have a smart meter.

Again, the benefits from smart meters and the information they provide was seen as being of most use to larger organisations or those with higher energy usage than the small businesses spoken to in this research.

4.5.2 Barriers to using the data

The greatest barrier to using the data was lack of awareness that the data existed. Several respondents suggested methods to increase awareness: energy providers should send information about the data being available to customers when a smart meter was installed; and energy providers should signpost the data on their websites to make customers aware that it existed.

While some respondents expressed an interest in looking at the data, they also reported that they may struggle to find the time to do so.

> "We've got lots of things we need to keep an eye on and I don't think that would be one" *Care home, 10-49 employees, South East, no smart meter*

Allied to this, several respondents mentioned that, even if they had time to look at the data, they would not know what it meant nor how to make changes based on the patterns of energy use shown in the data. Several mentioned that they would like to receive some training (either in person or through an online tutorial) on how to use and interpret the data.

> "It needs to be followed up by someone explaining the full benefits of how a smart meter a) can be used, b) various aspects of the functionality of it." *Importer/ wholesaler, <10 employees, North West, no smart meter*

Several other respondents mentioned that they would not feel confident looking at the data and knowing what it meant, what they would like was advice rather than raw information.

> "People don't understand the information nor how to use it" *Hardware store, <10 employees, West Midlands, smart meter*

> "I would like someone to come in who had an eye for things and maybe they can spot areas that we can be more efficient in. I think we'd even pay for that." *Hair salon, 50+ employees, London, no smart meter*

Again, cost was mentioned as a barrier to using the data, several respondents said they expected the data to be free to access, but more importantly many respondents felt the potential savings were not sufficient to make taking time to look at the data worthwhile.

4.5.3 Accessing the data

During the interview, various ways of accessing the data were discussed with participants, specifically accessing data direct from the smart meter through an In-Home Display (IHD) and via online portals. To help understanding, an illustration of a typical IHD and the data it could display was shown to respondents, a copy of the illustration used can be found in the appendices. Respondents were asked about other ways in which they would like to access the data and some mentioned apps for smart phones, but the most popular access means were either online or through an IHD.

Online was the most popular method of accessing the data. Respondents saw this as useful because the data could be shared with colleagues. Further, respondents assumed the data would be available in excel format and therefore could be manipulated and analysed more easily than if it was presented as pre-designed charts or tables.

A few respondents felt that online would not be a good way to access the data; their concerns revolved around having to set-up accounts and remember passwords which were considered to be a hassle. As mentioned above, respondents were concerned that they would not be able to understand the data and therefore felt it would need to be presented in a simple and logical format to aid their understanding. There were some examples of good formats in the stimulus materials used which were mentioned by respondents, these included websites which showed energy usage over time in a graphic format and particularly those which showed comparisons for example to the same period last year.

Accessing the data through **an IHD** was also popular, and only a few respondents rejected the concept, although overall there was less interest than in online access. Some were willing to pay for the IHD but more felt it should be free of charge with their smart meter. The IHD would be used as a source of historical data on energy use but was also felt to be a useful visual reminder to staff about the impact of their energy usage. These respondents believed that the IHD would show spikes in usage when equipment was turned on; this view was most likely to be expressed by respondents with 10-49 employees.

A small number took an opposing view that it would be patronising to staff and would be a visual reminder of something they were already doing.

There were also concerns about losing the IHD and that the IHD was a gimmick, similar to reactions to in-home energy monitors, and had no real value.

Apps for smart phones were not as popular as online access or an IHD. Although a few respondents (generally those with fewer than 10 employees) liked the idea of being able to check energy usage remotely, especially if it meant they could be alerted to any unusual usage patterns, this was balanced by those who felt this would be intrusive to their personal life. None who mentioned an app were willing to pay for it.

4.6 Information sources

Respondents who were aware of smart meters were asked how they had found out about smart meters. Everybody was asked how they would like to find out about smart meters.

4.6.1 Sources of information

The largest proportion of respondents had not heard anything about smart meters. It was also clear that even among those who had had a smart meter installed, there was a large proportion who did not know their new meter had smart technology[18].

Those who were aware of smart meters were most likely to say they had heard about them via the media (TV, radio or newspapers), through word of mouth (from colleagues, friends and family) or through their energy provider.

[18] It is not clear whether this was a general lack of awareness or the result of drawing the sample of smart meter customers from only one energy provider who might have taken a particular approach when installing smart meters.

However, even amongst those who *did* have an awareness of smart meters, there was generally a limited recollection of what exact details they had heard and from which source:

> "I vaguely remember reading something about it in a newspaper, but very vague" *Care home, 10-49 employees, South East, no smart meter*

Several respondents mentioned public awareness campaigns including billboards and television adverts as an effective method of raising the profile of smart meters and communicating the benefits of upgrading. These adverts could signpost interested people to appropriate government websites, where more information could be available, including introductory videos.

4.6.2 Preferred sources of information

Most respondents wanted independent information about smart meters and the benefits they offer. Most mentioned that they would search for this information on the internet but several also pointed out that, because they were not aware of smart meters, they did not know where to search for relevant information.

Respondents also mentioned that once they were aware of smart metering and the benefits they would search for further information. Most would use the internet and out look at a range of sources. They would expect to see information on energy provider websites but would also want to find independent information (for example through consumer bodies such as Which? or DECC), they would also look at forums and other "open" sources to find out the negative aspects and views.

> "To be honest I might just Google it and then hopefully you'd think that would come up and then I would look on it, but I probably wouldn't think there must be a government website about this and look into it." *Clothes shop, <10 employees, East Midlands, no smart meter*

Government sources were generally seen as independent and trustworthy. Most respondents felt that the information provided on government websites would be objective, accurate and reliable:

> "[Government websites] you know they're impartial, you know they're not there to make loads of money. There's sort of an inbuilt trust of them." *Day care centre, 50+ employees, West Midlands, smart meter*

However, trust in government sources was by no means unanimous, with some respondents viewing them as giving "opinion rather than fact" (*Pub, <10 employees, East Midlands, smart meter*), and that "[the government] are working in tandem with energy suppliers" (*Restaurant, <10 employees, London, smart meter*).

Where trustworthiness was considered an important factor, but government sources were not held in high regard, some respondents spontaneously mentioned the role of other independent sources, such as consumer organisations, comparison websites, the Citizens Advice Bureau and internet search engines (e.g. Google) in providing trusted information. These sources were not considered to have any vested interest in the roll-out of smart meters, enhancing the view that they would provide reliable and objective information.

Energy providers were considered to have a vested interest in the roll-out of smart meters and therefore could not offer independent information about them.

However, while most respondents did not want energy providers to be the source of information they did recognise that energy providers were the most obvious means for getting the information to SMEs as the energy providers already have contact details for their customers.

However, this presented one of the challenges to realising the benefits of smart meters: how to get the information to the correct person in each organisation. Respondents readily admitted that they did not read most of the information sent to them by energy providers. In some cases, information was binned by the respondent, in other cases the respondent never got to see the information as another person in the organisation was responsible for opening and sorting the post.

> "If the information came straight in the post direct from an organisation I don't deal with, then it goes straight in the bin. But if it comes through with the [energy] bill then you'd flick through it" *Private members club, 50+ employees, London, no smart meter*

> "I don't actually [see the bumph], I only see the bills. So everything that comes out of the envelope probably gets discarded. And there's no way a supplier would know whether I'm responsible for looking at this or if one of my other four directors is responsible for it; we've all got different responsibilities" *Estate agent, 10-49 employees, East Midlands, no smart meter*

There were pieces of information which were always opened and read by respondents, these were communications from the government (specifically related to tax and VAT) and newsletters and other communications from their trade bodies. Trade bodies were the main means of keeping up to date with changes to regulations and innovations in their industry, and several respondents mentioned them as a good means of disseminating information about smart meters and the benefits they offer.

> "We have trade newspapers and things like that for example, and I would look at something in those magazines, and something in the past has caught my eye and acted on it. But newspapers perhaps not, but certainly trade magazines and things like that yes." *Care home, 10-49 employees, South East, no smart meter*

4.6.3 Preferred formats of information

Respondents were shown some examples of information about smart meters[19] and asked which they found most or least useful and informative. What respondents liked in the information sources they were shown was:

- Simple terminology to describe the technology e.g. – informative without blinding them with science;

[19] A range of publicly accessible information was selected to reflect different media, styles and levels of technical information available to those who search for information about smart meters

> "I'd listen to something like that [a short simple video] ... it says it as it is, made you understand it", *Construction company,10-49 employees, North West, no smart meter*

- A short, informative letter aimed at a business audience, and acknowledging the importance of cost to the SME market;
- Balanced and objective information, putting forward both sides of the argument around smart metering;

> "It does seem fairly generic, it's fine; I mean I probably trust [consumer body] as someone fairly independent to give me some rather critical appraisal." *Launderette, <10 employees, West Midlands, smart meter*

- Visually appealing layout with use of colour to highlight sections or where more information is available on a website, and ideally with graphs showing a typical data analysis.

What they did not like was:

- Anything that appeared to be simply advertising or a sales pitch;

> "It's a flyer to put straight in the recycling" *Manufacturer, 10-49 employees, East Midlands, no smart meter*

- Using language that was too technical, for example respondents felt one leaflet which was shown was aimed at engineers or people with a technical background and knowledge of energy management rather than the average business person;

> "To be honest I would've chucked it in the bin by now. I'm completely confused" *Recruitment agency, <10 employees, North West, no smart meter*

- Especially if the document or website was also long-winded;

> "That's so wordy. I'm feeling just overwhelmed by long words on there. There's one sentence that I just can't get to the end of. It's not very punchy." *Hair salon, 50+ employees, London, no smart meter*

4.7 Interest in Time of Use (TOU) tariffs and automated Demand Side Response (DSR)

Respondents were asked about two specific benefits linked to having a smart meter:

- TOU Tariffs (where the cost of energy varies by times of day/levels of national demand); and
- Automated DSR (where the amount of energy provided to specific equipment is reduced at times of peak demand to better manage the national demand for electricity).

4.7.1 TOU tariffs

Of the two benefits discussed, TOU tariffs were of more interest to respondents, especially if they would save money for the user.

> "[We would be interested getting a smart meter if] at some point in the future energy was charged at a more varied rate through varied periods of the day." *Construction company,10-49 employees, North West, no smart meter*

Some respondents did not believe that such a tariff would actually save money and others were concerned that it might cost extra to be on such a tariff, thus eliminating the benefits of the lower cost for energy.

Where respondents were not interested in TOU tariffs this was because they felt that their energy usage could not be shifted to different times – either because they worked standard business hours (considered to be peak demand times) or because their variable energy use was linked to customer demand rather than controlled by them. These comments have been seen throughout the discussions and represent one of the greatest barriers to interest in energy management and reduction.

Overall TOU tariffs were seen to offer no real disadvantages (provided there was no premium to be on the tariff and the smart meter was free). Respondents also saw TOU tariffs as a spin off from energy providers knowing more about when their organisation was using energy. These respondents would expect TOU tariffs to be like mobile phone contracts where a range of "bundles" are available to cover different patterns of usage[20].

4.7.2 Automated DSR

There was less interest in Automated DSR as most respondents felt that they could not change their business activities to benefit from this energy management approach.

The main interest was again if this option could save their organisation money or if it offered the SME itself the ability to control equipment remotely (for example turning off specific equipment such as freezers).

The main concerns were around losing control over when they could use equipment plus whether or not business-critical equipment could be exempt from any reduction in energy supply.

In all, respondents felt that they needed more information about this option in order to consider it properly and to think through the benefits and impacts on their own business. Several respondents saw benefits of Automated DSR being purely for the energy provider and not for the user.

4.8 How to promote smart meters to SMEs

Following the interim debrief during fieldwork, it was decided to explore the specific messages which respondents felt would be most effective in promoting smart meters to SMEs.

[20] This research took place before the announcement by British Gas/Centrica of their plans to introduce "Free Energy Saturdays" for their domestic customers with smart meters but with higher weekday energy tariffs. While this particular "bundle" was not mentioned it would be an example of what respondents meant in their use of the term "bundle".

From the discussions it was clear that the main promotion used by the energy provider who supplied the sample of respondents with smart meters had been a simple upgrade of technology message. Respondents were happy with this message and it raised no concerns among them and they were (and would be) happy to accept a smart meter on this basis.

There was a negative reaction to promoting smart meters specifically as a source of energy management information. For respondents presented with this possible message, the immediate thoughts were that they would be charged for the data or to access the data. This concern could lead them to reject a smart meter if the only message was the data being available.

Respondents felt the best approach would be to combine the upgrade message with the benefit of accurate billing; which would offer the advantage to the SME of smoothing cash flow and ending disputes with their energy provider for any unexpected bills.

Those who did mention ways to promote smart meters to other SMEs suggested focusing on combining the following issues:

- The potential for long-term savings through reductions in energy consumption;
- The ability to smooth cash flow as a result of accurate billing; and
- Reducing the hassle of manual meter readings.

The most powerful message for SMEs would be the ability to reduce costs, but this would need to be combined with education to enable SMEs to interpret the data provided by the smart meter.

Respondents felt that the most effective method of promoting the benefits of smart meters to SMEs would be an information pamphlet highlighting the advantages of upgrading:

> "It should be made a duty by law to inform you and tell you about how it works" *Social club, <10 employees, Scotland, smart meter*

The general view was that the leaflet could be sent out by energy providers with the bill. The preference was also that the information should appear on the bill rather than take the form of a leaflet enclosed with the bill. The problems associated with this approach were explored in Section 4.5.2.

5. Conclusions

This was an initial in-depth qualitative study into SMEs and smart metering, with a relatively small sample size of SMEs both with and without smart meters and those with smart meters were drawn from only one energy supplier. It was designed to look in depth at a broad sample of SMEs. Our conclusions should be assessed in this light. Nevertheless some clear findings emerged from the research. These are set out below, with some suggested implications which will need further exploration.

The study revealed a range of attitudes and approaches to energy and energy management on the part of SMEs. The study was not intended to quantify this range or provide a segmentation[21], however three broad groupings were identified, providing a useful initial classification:

- the "Trying" group (the largest group by far), who felt they were doing as much as they could to reduce costs, without the benefit of detailed information;
- the "Advocates" (a few respondents only) who tended to be environmentally motivated, and were the most interested in having and using data about their energy usage; and
- the "Uninterested" (a few respondents only), comprised of professional services organisations for which energy represented a very small part of their operating costs.

Based on their very different starting positions, these groups are likely to have different expectations and requirements from smart metering, which will benefit from being factored into market offerings and engagement strategies.

The main perceived and experienced benefits of smart metering were seen to be accurate billing and putting an end to meter readings. Whilst there was also interest in having the ability to monitor and track energy patterns, no respondents with smart meters were using this facility and none was aware that it was possible. The study showed that in order to benefit from the installation of a smart meter SMEs need to be made aware of the functionality of a smart meter and how this can be used to reduce energy usage. There was an appetite and interest on the part of most of the SMEs (with and without smart meters) in receiving appropriate information which explained the potential benefits of smart metering and the options available.

There were a number of challenges in getting such information to SME decision-takers, in particular their lack of time. A variety of channels for information were suggested by participants, including mass awareness campaigns, information on (rather than with) energy bills, enclosures with Government communications (specifically related to tax and VAT), and information in trade association newsletters. (The possible role of the Central Delivery Body for smart metering consumer engagement, which has responsibilities for micro-business as well as residential consumers, was not explored in the research, but it could potentially play a part). Several participants suggested case studies would be the best way to show the benefits which could be realised through understanding and reducing energy use. As case studies needed to be

[21]DECC's separate Non-Domestic Buildings Energy Use research project, which will survey a large number of businesses in order to quantify the scope for energy abatement and to understand the barriers and facilitators of energy abatement will provide further information in 2014 https://www.gov.uk/government/publications/decc-non-domestic-building-energy-use-project-phase-1

relevant and specific to their industry, this would involve producing a large number of case studies, but could be achievable with the assistance of the trade bodies.

Respondents were generally curious about the energy usage patterns that smart meters can reveal, but showed stronger levels of interest in a one-off review rather than an on-going process of review and management. However, it was clear from respondents' comments that if they saw a way of saving money from using the energy usage data then they thought it was more likely to become part of their management processes.

Many respondents said that they were not confident that they would know how to interpret the data produced by a smart meter. Further, even if they took the time to learn what the data was showing them, they did not know how to turn this knowledge into simple actions to reduce or shift their energy use. However it was not seen as realistic for paid-for energy consultancy or advice to fill these gaps. Therefore it would appear that any assistance with energy management advice would need to come from a different source. However, given the relatively simple energy usage patterns described by the respondents who took part in the research, it is possible that a simple online energy tool with a good tutorial could meet their needs.

Time of use (TOU) tariffs were of interest to some, especially if they would save money for the user. Where respondents were not interested in TOU tariffs this was because they felt that their energy usage could not be shifted to different times or because their variable energy use was linked to customer demand rather than controlled by them. It was clear from many comments that the promotion of a range of TOU tariffs could help to encourage SMEs to look at their energy usage patterns and to consider how to reduce or shift use to benefit from such tariffs.

Respondents found it difficult to understand how Demand Side Response (DSR) might work for them and felt that they needed more information about DSR in order to consider it properly and to think through the benefits and impacts on their own business implying that SMEs would need good information to understand whether they could offer benefits in specific business contexts.

In conclusion, the study suggests that further action may be needed for the potential benefits of smart metering to SMEs to be fully realised, both in relation to communication and awareness-raising, and the development and provision of appropriate products and services to SME customers.

Appendices

Recruitment questionnaires

Recruitment Specification [13-001748-01]
SME Smart Meter Research
With Smart Meters

RESPONDENT RECRUITED FOR:
RESPONDENT NO:

Specification - This questionnaire recruits people with the following characteristics:

Sample frame overview

Smart meter?	Business with a smart meter / advanced meter **(25 interviews)**
Industry sector	4-5 x hospitality 4-5 x retail 4-5 x administration 4-5 x small public sector bodies 4-5 x manufacturing/ agriculture 4-5 x from another business sector
Business occupancy type	8 x tenants without right to change meter (minimum) 8 x owner occupiers / tenants with right to change meter (minimum)
Energy supply	12 x electricity-only users (minimum) 5 x electricity and gas users (minimum)
Energy Usage	5 x high use (eg manufacturing) (minimum) 5 x low use (eg service based) (minimum)
Size of business	4 x sole traders 7 x 2-10 employees 7 x 11-50 employees 7 x 51-250 employees
Installation dates	6 x 2012 installation (minimum) 6 x 2011 installation (minimum) 6 x 2009-10 installation (minimum)
Meter installer	5 x Energy supplier (minimum) 5 x Energy Services Company (minimum)

Good morning/afternoon/evening. My name is ..... from Ipsos MORI, an independent research company. We are conducting some research for the government among small and medium sized businesses, about their energy management and metering needs. You may recall receiving a letter about this. Are you able to help me?

We are looking to speak to people in businesses who are responsible for making decisions around energy e.g. managing energy costs, purchasing energy services, changing supplier to take part in a research interview at their place of work to discuss these and other issues. The interview should take around 90 minutes and to say thank you for your time and input we offer you £100. You are free to keep this or donate it to the charity of your choice (which we can arrange for you if you choose).

Q1. **Which of these best describes your role as regards energy management within your business?** SINGLE CODE

	I am the business owner and the main person dealing with energy management issues in the business	1	CONTINUE
	I have oversight of how energy is managed in the business, though I don't look at all the bills	2	CONTINUE
	While not the final decision-maker, I am the main person responsible for dealing with energy management in the business. The decision-maker looks to me for advice.	3	CONTINUE
	I deal with the energy bills but I don't make or influence decisions about energy management in the business	4	THANK AND CLOSE – PLEASE ASK TO SPEAK TO MAIN PERSON WHO DOES DEAL WITH ENERGY MANAGEMENT WITHIN BUSINESS
	I do not get involved in energy management issues or decisions in this business	5	THANK AND CLOSE – PLEASE ASK TO SPEAK TO MAIN PERSON WHO DOES DEAL WITH ENERGY MANAGEMENT WITHIN BUSINESS
	Other role WRITE IN ROLE	6	CHECK WITH PROJECT EXEC IF ACCEPTABLE ROLE FOR INTERVIEWING

NOTE FOR GUIDANCE:
THERE IS NO SINGLE JOB TITLE WE ARE SEEKING – JUST THE MAIN PERSON RESPONSIBLE FOR ENERGY MANAGEMENT IN THE BUSINESS. THIS PERSON WOULD BE THE MAIN DECISION-MAKER OR INFLUENCER ON ANY CHANGE TO METERING ARRANGEMENTS FOR THE BUSINESS.

FOR BUSINESSES WITH 1-9 EMPLOYEES: GENERALLY IT WILL BE THE BUSINESS OWNER WE NEED – THE MAIN DECISION-MAKER, THOUGH IT COULD BE ANOTHER SENIOR MANAGER OF THE BUSINESS.

FOR BUSINESSES WITH 11 EMPLOYEES OR MORE: IT MAY BE A FACILITIES MANAGER, FINANCE DIRECTOR OR OTHER BUSINESS UNIT MANAGER.

We would like to speak to a range of different types of business in this research, so we need to run through a few questions now with you to make sure you and your business fit with what we are looking for. All of the information collected will be confidential.

Q2. **Do you or any members of your immediate family work in any of the following areas?** CAN MULTI CODE

A	Advertising	1	THANK AND CLOSE
B	Market Research	2	
C	Public Relations	3	
D	Marketing	4	
E	Publishing	5	
F	Journalism	6	
G	Broadcasting	7	
H	Energy sector e.g. working for an energy supplier/distribution/energy consultancy/energy metering or services/renewable energy	8	
I	Environmental sector e.g. sustainability	9	
J	No, none of these	10	CONTINUE
K	Don't know	11	CONTINUE

Q3 **What is the size of your business, in terms of employee numbers?** SINGLE CODE

	Sole trader	1	CONTINUE; SEE QUOTAS
	2-10 employees	2	CONTINUE; SEE QUOTAS
	11-50 employees	3	CONTINUE; SEE QUOTAS
	51-250 employees	4	CONTINUE; SEE QUOTAS
	More than 250 employees	5	**THANK AND CLOSE**

IF NOT A SOLE TRADER THEN ASK:

Q4 **How many sites does your business have?** SINGLE CODE

WRITE IN NUMBER	CONTINUE

ASK ALL:

Q5 **Which of the following best describes your type of business premises?** SINGLE CODE

	We are based in a residential house or flat (we have no separate business premises)	1	**THANK AND CLOSE**
	We rent our premises as **tenants** – and we have no right to change our energy meters, this is solely the landlord's decision	2	CONTINUE; RECRUIT AS 'TENANT' (SEE QUOTAS)
	We rent our premises as **tenants –** and we have the right to change our energy meters if we choose	3	CONTINUE; RECRUIT INTO 'OWNER OCCUPIER' CELL (SEE QUOTAS)
	We rent our premises as **tenants** – but I don't know if we can change our energy meters if we choose	4	CONTINUE: RECRUIT AS 'TENANT' (SEE QUOTAS)
	We are **owner occupiers** of our premises	5	CONTINUE; SEE QUOTAS

NOTE: FOR TENANTS, WE WANT TO DISTINGUISH BETWEEN (a) TENANTS FOR WHOM THE LANDLORD MAKES ALL DECISIONS ON ENERGY METERING (WHOM WE CALL 'TENANTS' IN THE SAMPLE FRAME) AND (b) THOSE TENANTS WHO HAVE THE RIGHT TO CHANGE THEIR ENERGY METER THEMSELVES (WHOM WE ARE PUTTING TOGETHER WITH 'OWNER OCCUPIERS' IN THE SAMPLE FRAME).

Q6 **From the following list, what is your industry sector?** SINGLE CODE

	Public sector (including health / social work / education)	1	CONTINUE; SEE QUOTAS
	Hospitality/accommodation/food service	2	
	Retail	3	
	Administrative (private sector)	4	
	Manufacturing	5	
	Agriculture/forestry/fishing	6	
	Construction	7	
	Transport/storage	8	
	Information and communication	9	
	Financial/insurance/real estate/ professional services	10	
	Arts/entertainment/leisure	11	
	Other business sector	12	

Q7 **What sort of energy supply do you have?** SINGLE CODE

	Electricity only	1	CONTINUE; SEE QUOTAS
	Electricity and gas	2	CONTINUE; SEE QUOTAS

Q8 **And can I just check, are you on a business energy tariff or a residential tariff?** SINGLE CODE

	Business	1	CONTINUE
	Residential	2	THANK & CLOSE

Q9 **And do you know what profile class electricity meter your business has?** SINGLE CODE

	Yes	1	GO TO Q10A
	No	2	GO TO Q10B

Q10 A **IF YES AT Q9**
What is the profile class of your meter? SINGLE CODE

	Profile class 1 (Domestic meter)	1	THANK & CLOSE
	Profile class 2 (domestic meter)	2	THANK & CLOSE
	Profile class 3 (no special high demands)	3	CONTINUE
	Profile class 4 (no special high demands, on Economy 7)	4	CONTINUE
	Profile class 5-8 (business with high electricity demands but without mandated half hourly metering	5	THANK & CLOSE
	Profile class 00 or 9 (will have mandatory half hourly electricity meter)	6	THANK & CLOSE

Q10 B **IF NO AT Q9**
Does your business have a mandated half-hourly meter? SINGLE CODE

	Yes	1	GO TO Q10C
	No	2	CONTINUE; SEE QUOTAS

Q10 C **IF YES AT Q10B**
Is your business considered to have high electricity demands or not? SINGLE CODE

	Yes, high electricity demands	1	THANK AND CLOSE
	No	2	CONTINUE; SEE QUOTAS

Q11 **And as far as you are aware, do you have a smart or advanced meter for electricity in your business?** SINGLE CODE

	We have at least one ‘advanced meter’,	1	CONTINUE

	but we do not have a 'smart meter' as such		
	We have at least one 'smart meter'	2	CONTINUE
	We have a meter that is neither an advanced nor a smart meter	3	CONTINUE

Q12 **FOR GAS USERS ONLY:**
And as far as you are aware, do you have a smart or advanced meter for gas in your business? SINGLE CODE

	We have at least one 'advanced meter', but we do not have a 'smart meter' as such	1	CONTINUE
	We have at least one 'smart meter'	2	CONTINUE
	We have a meter that is neither an advanced nor a smart meter	3	CONTINUE

CHECK THAT CUSTOMER HAS AT LEAST ONE SMART/ADVANCED METER BEFORE RECRUITING

Q13 IF HAVE EITHER ELECTRICITY OR GAS SMART METER AT Q11 or Q12
Who provided your Smart/Advanced meter? SINGLE CODE

	Energy supplier	1	CONTINUE; SEE QUOTAS
	Energy services company	2	CONTINUE; SEE QUOTAS
	Don't know	3	CONTINUE; SEE QUOTAS

Q14 IF HAVE ELECTRICITY SMART METER AT Q11
Did you choose to have an electricity smart meter or was the decision made by your energy supplier? SINGLE CODE

	We chose to have the smart meter installed	1	CONTINUE
	Our energy supplier decided to install the smart meter	2	CONTINUE
	The meter was installed before we moved to the premises	3	CONTINUE
	Don't know	4	CONTINUE

Q15 IF HAVE GAS SMART METER AT Q12
Did you choose to have a gas smart meter or was the decision made by your energy supplier? SINGLE CODE

	We chose to have the smart meter installed	1	CONTINUE
	Our energy supplier decided to install the smart meter	2	CONTINUE
	The meter was installed before we moved to the premises	3	CONTINUE
	Don't know	4	CONTINUE

Q16 ASK ALL
Is there anyone else in your organisation who is actively involved in reviewing or using the data from smart meters? IF YES, PROBE FOR JOB JUNCTIONS OF OTHERS INVOLVED. MULTI CODE ALLOWED

	Energy management	1	CONTINUE
	Finance / cost control	2	CONTINUE
	Strategic planning	3	CONTINUE
	Operations	4	CONTINUE
	External energy consultant/broker	5	CONTINUE
	No one else is involved	6	CONTINUE
	Don't know	7	CONTINUE

RECRUIT TO INTERVIEW SAMPLE FRAME REQUIREMENTS
ARRANGE DATE AND TIME FOR INTERVIEW WITH PARTICIPANT

Interviewer Declaration

Interviewer number: .....

Interviewer name (CAPS): .....

I confirm that I have conducted this interview face to face with the named person of the address attached and that I asked all the relevant questions fully and recorded the answers in conformance with the survey specification and within the MRS Code of Conduct and the Data Protection Act 1998.

Interviewer Signature: .....

Date: .....

THIS MUST BE THE LAST PAGE OF THE QUESTIONNAIRE AND MUST BE SINGLE SIDED

Ipsos MORI:
13-001748-01

SME SMART METER RESEARCH INTERVIEWS – WITH SMART METER

RESPONDENT RECRUITED FOR
Date:
Time:
RESPONDENT NO:

Recruitment Questionnaire

PERSONAL IDENTIFIERS

Details

Location: Date:

Time:

Name/Initial/Title: Mr/Mrs/Ms/Miss

Organisation:

Address:

Full Postcode

Tel. Number (WRITE IN INCLUDING STD CODE)	
Home/mobile	1
Work	2
Refused/Ex-directory	3

E-mail address (WRITE IN)

Is respondent willing to take part and available?

Yes	1
No	2

PLEASE SEND CONFIRMATION EMAIL TO PARTICIPANT.

PLEASE REMEMBER TO SEND OUTLOOK APPOINTMENT TO MODERATOR, WITH PARTICIPANT CONTACT DETAILS.

Recruitment Specification [13-001748-01]
SME Smart Meter Research
Without Smart/Advanced Meter

RESPONDENT RECRUITED FOR:
RESPONDENT NO:

Specification - This questionnaire recruits people with the following characteristics:

Sample frame overview

Smart meter?	**Businesses without a smart meter / advanced meter (20 interviews)**
Industry sector	4 x hospitality 3 x retail 3 x administration 3 x small public sector bodies 4 x from another business sector **3 Manufacturing/ agriculture**
Business occupancy type	7 x tenants without right to change meter (minimum) **7 x owner occupiers / tenants with right to change meter (minimum)**
Energy supply	12 x electricity-only users (minimum) 4 x electricity and gas users (minimum)
Energy Usage	3 x high use (eg manufacturing) (minimum) 3 x low use (eg service based) (minimum)
Size of business	4 x sole traders 6 x 2-10 employees 5 x 11-50 employees 5 x 51-250 employees
Installation dates	N/A – Note: We have separate quotas for those with smart meters. Please record the details of any customers with smart meters and inform Project Executive so that the organisations may be included in those quotas
Meter installer	

Good morning/afternoon/evening. My name is ..... from Ipsos MORI, an independent research company. We are conducting some research for the government among small and medium sized businesses, about their energy management and metering needs. You may recall receiving a letter about this. Are you able to help me?

We are looking to speak to people in businesses who are responsible for making decisions around energy e.g. managing energy costs, purchasing energy services, changing supplier to take part in a research

interview at their place of work to discuss these and other issues. The interview should take around 75 minutes and to say thank you for your time and input we offer you £100. You are free to keep this or donate it to the charity of your choice (which we can arrange for you if you choose).

Q3. **Which of these best describes your role as regards energy management within your business?** SINGLE CODE

	I am the business owner and the main person dealing with energy management issues in the business	1	CONTINUE
	I have oversight of how energy is managed in the business, though I don't look at all the bills	2	CONTINUE
	While not the final decision-maker, I am the main person responsible for dealing with energy management in the business. The decision-maker looks to me for advice.	3	CONTINUE
	I deal with the energy bills but I don't make or influence decisions about energy management in the business	4	THANK AND CLOSE – PLEASE ASK TO SPEAK TO MAIN PERSON WHO DOES DEAL WITH ENERGY MANAGEMENT WITHIN BUSINESS
	I do not get involved in energy management issues or decisions in this business	5	THANK AND CLOSE – PLEASE ASK TO SPEAK TO MAIN PERSON WHO DOES DEAL WITH ENERGY MANAGEMENT WITHIN BUSINESS
	Other role WRITE IN ROLE	6	CHECK WITH PROJECT EXEC IF ACCEPTABLE ROLE FOR INTERVIEWING

NOTE FOR GUIDANCE:
THERE IS NO SINGLE JOB TITLE WE ARE SEEKING – JUST THE MAIN PERSON RESPONSIBLE FOR ENERGY MANAGEMENT IN THE BUSINESS. THIS PERSON WOULD BE THE MAIN DECISION-MAKER OR INFLUENCER ON ANY CHANGE TO METERING ARRANGEMENTS FOR THE BUSINESS.

FOR BUSINESSES WITH 1-9 EMPLOYEES: GENERALLY IT WILL BE THE BUSINESS OWNER WE NEED – THE MAIN DECISION-MAKER, THOUGH IT COULD BE ANOTHER SENIOR MANAGER OF THE BUSINESS.

FOR BUSINESSES WITH 11 EMPLOYEES OR MORE: IT MAY BE A FACILITIES MANAGER, FINANCE DIRECTOR OR OTHER BUSINESS UNIT MANAGER.

We would like to speak to a range of different types of business in this research, so we need to run through a few questions now with you to make sure you and your business fit with what we are looking for. All of the information collected will be confidential.

Q4. **Do you or any members of your immediate family work in any of the following areas?** CAN MULTI CODE

A	Advertising	1	THANK AND CLOSE
B	Market Research	2	
C	Public Relations	3	
D	Marketing	4	
E	Publishing	5	
F	Journalism	6	
G	Broadcasting	7	
H	Energy sector e.g. working for an energy supplier/distribution/energy consultancy/energy metering or services/renewable energy	8	
I	Environmental sector e.g. sustainability	9	
J	No, none of these	10	CONTINUE
K	Don't know	11	CONTINUE

Q3 **What is the size of your business, in terms of employee numbers?** SINGLE CODE

	Sole trader	1	CONTINUE; SEE QUOTAS
	2-10 employees	2	CONTINUE; SEE QUOTAS
	11-50 employees	3	CONTINUE; SEE QUOTAS
	51-250 employees	4	CONTINUE; SEE QUOTAS
	More than 250 employees	5	**THANK AND CLOSE**

IF NOT A SOLE TRADER THEN ASK:

Q4 **How many sites does your business have?** SINGLE CODE

WRITE IN NUMBER	CONTINUE

ASK ALL:

Q5 **Which of the following best describes your type of business premises?** SINGLE CODE

	We are based in a residential house or flat (we have no separate business premises)	1	**THANK AND CLOSE**
	We rent our premises as **tenants** – and we have no right to change our energy meters, this is solely the landlord's decision	2	CONTINUE; RECRUIT AS 'TENANT' (SEE QUOTAS)
	We rent our premises as **tenants –** and we have the right to change our energy meters if we choose	3	CONTINUE; RECRUIT INTO 'OWNER OCCUPIER' CELL (SEE QUOTAS)
	We rent our premises as **tenants** – but I don't know if we can change our energy meters if we choose	4	CONTINUE: RECRUIT AS 'TENANT' (SEE QUOTAS)
	We are **owner occupiers** of our premises	5	CONTINUE; SEE QUOTAS

NOTE: FOR TENANTS, WE WANT TO DISTINGUISH BETWEEN (a) TENANTS FOR WHOM THE LANDLORD MAKES ALL DECISIONS ON ENERGY METERING (WHOM WE CALL 'TENANTS' IN THE SAMPLE FRAME) AND (b) THOSE TENANTS WHO HAVE THE RIGHT TO CHANGE THEIR ENERGY METER THEMSELVES (WHOM WE ARE PUTTING TOGETHER WITH 'OWNER OCCUPIERS' IN THE SAMPLE FRAME).

Q6 **From the following list, what is your industry sector?** SINGLE CODE

	Public sector (including health / social work / education)	1	CONTINUE; SEE QUOTAS
	Hospitality/accommodation/food service	2	
	Wholesale/Retail/motor vehicle repairs	3	
	Administrative (private sector)	4	
	Manufacturing	5	
	Agriculture/forestry/fishing	6	
	Construction	7	
	Transport/storage	8	
	Information and communication	9	
	Financial/insurance/real estate/ professional services	10	
	Arts/entertainment/leisure	11	
	Other business sector	12	

Q7 **What sort of energy supply do you have?** SINGLE CODE

	Electricity only	1	CONTINUE; SEE QUOTAS
	Electricity and gas	2	CONTINUE; SEE QUOTAS

Q8 **And can I just check, are you on a business energy tariff or a residential tariff?** SINGLE CODE

	Business	1	CONTINUE
	Residential	2	THANK & CLOSE

Q9 **And do you know what profile class electricity meter your business has?** SINGLE CODE

	Yes	1	GO TO Q10A
	No	2	GO TO Q10B

Q10 A **IF YES AT Q9**
What is the profile class of your meter? SINGLE CODE

	Profile class 1 (Domestic meter)	1	THANK & CLOSE
	Profile class 2 (domestic meter)	2	THANK & CLOSE
	Profile class 3 (no special high demands)	3	CONTINUE
	Profile class 4 (no special high demands, on Economy 7)	4	CONTINUE
	Profile class 5-8 (business with high electricity demands but without mandated half hourly metering	5	THANK & CLOSE
	Profile class 00 or 9 (will have mandatory half hourly electricity meter)	6	THANK & CLOSE

Q10 B **IF NO AT Q9**
Does your business have a mandated half-hourly meter? SINGLE CODE

	Yes	1	GO TO Q10C
	No	2	CONTINUE; SEE QUOTAS

Q10 C **IF YES AT Q10B**
Is your business considered to have high electricity demands or not? SINGLE CODE

	Yes, high electricity demands	1	THANK AND CLOSE
	No	2	CONTINUE; SEE QUOTAS

IF YOU FIND AN ORGANISATION WITH A SMART/ADVANCED METER INSTALLED, PLEASE GATHER THE DETAILS BELOW (Q11 TO Q18) AND PASS TO THE PROJECT EXECUTIVE SO THAT THEY MAY BE INCLUDED IN THE QUOTAS FOR THOSE WITH SMART METERS.

Q11 **And as far as you are aware, do you have a smart or advanced meter for electricity in your business?** SINGLE CODE

	We have at least one 'advanced meter', but we do not have a 'smart meter' as such	1	CONTINUE; PASS DETAILS TO PROJECT EXEC
	We have at least one 'smart meter'	2	CONTINUE; PASS DETAILS TO PROJECT EXEC
	We have a meter that is neither an advanced nor a smart meter	3	GO TO Q12

Q12 **FOR GAS USERS ONLY:**
And as far as you are aware, do you have a smart or advanced meter for gas in your business? SINGLE CODE

	We have at least one 'advanced meter', but we do not have a 'smart meter' as such	1	CONTINUE; PASS DETAILS TO PROJECT EXEC
	We have at least one 'smart meter'	2	CONTINUE; PASS DETAILS TO PROJECT EXEC
	We have a meter that is neither an advanced nor a smart meter	3	RECRUIT; SEE QUOTAS

RECRUITER NOTE FOR RECRUITMENT: IF RESPONDENT FITS "ADVANCED/SMART METER" RECRUITMENT CRITERIA FOR EITHER ELECTRICITY OR GAS THEN RECRUIT A HAVING "ADVANCED/SMART METER". ONLY RECRUIT AS "WITHOUT SMART METER" IF HAVE NEITHER ELECTRICITY NOR GAS ADVANCED/SMART METER.

RECRUITER: EXPLANATION OF ADVANCED AND SMART METERS:
"ADVANCED METER" – THIS IS A METER THAT CAN PROVIDE USERS WITH INFORMATION ON THEIR ENERGY USAGE, BROKEN DOWN INTO 30 OR 60 MINUTE CHUNKS – BUT USERS HAVE TO REQUEST THIS INFORMATION IF THEY WANT IT AND IT IS NOT IMMEDIATELY PROVIDED. ADVANCED METERS TYPICALLY FEED INFORMATION ONE-WAY ONLY (FEEDING THE USAGE DATA BACK TO ENERGY SUPPLIER). THE ENERGY COMPANY CANNOT COMMUNICATE BACK WITH THE METER, FOR EXAMPLE IF THERE IS A PROBLEM.
"SMART METER" – THIS IS THE NEXT STAGE ON FROM AN ADVANCED METER. THEY GIVE THE USER NEAR REAL-TIME INFORMATION ON ENERGY USED FOR EXAMPLE THROUGH WEB BASED REPORTS. SMART METERS ALSO ALLOW TWO-WAY COMMUNICATION BETWEEN THE ENERGY SUPPLIER AND THE METER (SO THE ENERGY COMPANY CAN ACCESS THE METER REMOTELY IF THERE IS A PROBLEM).

FOR RECRUITMENT, WE ARE COUNTING ANYONE WITH AN ADVANCED METER AS QUALIFYING INTO THE 'SMART METER' CELL, AS WELL AS THOSE WITH AN ACTUAL 'SMART METER'.

Q14 IF HAVE ELECTRICITY SMART METER AT Q11
When was your most recent electricity smart or advanced meter installed? SINGLE CODE

	2010 or before	1	
	2011	2	
	2012 or 2013	3	

Q15 IF HAVE GAS SMART METER AT Q12
When was your most recent gas smart or advanced meter installed? SINGLE CODE

	2010 or before	1	
	2011	2	
	2012 or 2013	3	

Q16 IF HAVE EITHER ELECTRICITY OR GAS SMART METER AT Q11 or Q12
Who provided your Smart/Advanced meter? SINGLE CODE

	Energy supplier	1	
	Energy services company	2	
	Don't know	3	

Q17 IF HAVE ELECTRICITY SMART METER AT Q11
Did you choose to have an electricity smart meter or was the decision made by your energy supplier? SINGLE CODE

	We chose to have the smart meter installed	1	
	Our energy supplier decided to install the smart meter	2	
	The meter was installed before we moved to the premises	3	
	Don't know	4	

Q18 IF HAVE GAS SMART METER AT Q12
Did you choose to have a gas smart meter or was the decision made by your energy supplier? SINGLE CODE

	We chose to have the smart meter installed	1	
	Our energy supplier decided to install the smart meter	2	
	The meter was installed before we moved to the premises	3	
	Don't know	4	

Q19 ASK ALL WITH SMART METER
Is there anyone else in your organisation who is actively involved in reviewing or using the data from smart meters? IF YES, PROBE FOR JOB JUNCTIONS OF OTHERS INVOLVED. MULTI CODE ALLOWED

	Energy management	1	CONTINUE
	Finance / cost control	2	CONTINUE
	Strategic planning	3	CONTINUE
	Operations	4	CONTINUE
	External energy consultant/broker	5	CONTINUE
	No one else is involved	6	CONTINUE
	Don't know	7	CONTINUE

* * * *

RECRUIT TO INTERVIEW SAMPLE FRAME REQUIREMENTS
ARRANGE DATE AND TIME FOR INTERVIEW WITH PARTICIPANT

Interviewer Declaration

Interviewer number:.....

Interviewer name (CAPS):.....

I confirm that I have conducted this interview face to face with the named person of the address attached and that I asked all the relevant questions fully and recorded the answers in conformance with the survey specification and within the MRS Code of Conduct and the Data Protection Act 1998.

Interviewer Signature:.....

Date:.....

THIS MUST BE THE LAST PAGE OF THE QUESTIONNAIRE AND MUST BE SINGLE SIDED

Ipsos MORI:
13-001748-01

SME SMART METER RESEARCH INTERVIEWS – WITHOUT SMART METER

Recruitment Questionnaire

RESPONDENT RECRUITED FOR
Date:
Time:
RESPONDENT NO:

PERSONAL IDENTIFIERS

Details

Location: Date:

Time:

Name/Initial/Title: Mr/Mrs/Ms/Miss

Organisation:

Address:

Full Postcode

Tel. Number (WRITE IN INCLUDING STD CODE)	
Home/mobile	1
Work	2
Refused/Ex-directory	3

E-mail address (WRITE IN)

Is respondent willing to take part and available?

Yes	1
No	2

PLEASE SEND CONFIRMATION EMAIL TO PARTICIPANT.

PLEASE REMEMBER TO SEND OUTLOOK APPOINTMENT TO MODERATOR, WITH PARTICIPANT CONTACT DETAILS.

Topic guides

Interview Guide INTERNAL USE ONLY
V6 22/04/13

SMEs with Smart Meter

For interviewer: overview of main objectives for the project

Among the sample of SMEs, including businesses with and without smart meters (and here 'smart meter' includes advanced meters):

- *to explore awareness and understanding of smart meters and related products and services;*
- *to assess views of energy management for the business;*
- *to identify and understand the perceived benefits associated with smart meters and, among users, the actual benefits experienced;*
- *to explore experiences and perceptions of different types of feedback services;*
- *to assess the extent to which those who already have smart or advanced metering are utilising the services available.*
- *to understand the customer journey that current users went through in getting their smart meter;*
- *to identify and explore the barriers to having smart metering installed.*

Interviewer to bear these in mind throughout.

While all those who take part can provide views on information and info sources, perceptions of smart meters, experience of the installation process, etc, SMEs with a Smart Meter fall into a number of groups, each of which allows us to explore different perspectives

Group	Perspective they can provide
Chose to install a smart meter, and using the energy information services	Experience of using the information Benefits experienced from using the data How to encourage other SMEs to use the data available
Chose to install a smart meter but not using the energy information services	Barriers to using the benefits of smart meters Impact on business of not using the smart meter fully What information/support they need to encourage use of the smart meter features
Did not choose to install a smart meter – but happy with having one	Benefits of using the data Information sources on using the data. Perceptions of smart meters, specifically how was the installation handled, what information were they given, how was the smart meter "sold" to them How to encourage other SMEs to install a smart meter and use it effectively
Did not choose to install a smart meter and unhappy about having one	Perceptions of smart meters as a debt control tool Perceptions of energy suppliers following such action Information/encouragement received from energy supplier pre, during and post installation Information required in these instances How to encourage companies in this situation to use the available data effectively

Time	Key Questions	Notes
10 mins	**<u>Interviewer Introduction</u>** Introduce self, Ipsos MORI, and explain the aim of the interview. Explain that this research is about energy management and metering among SMEs. The research is on behalf of The Department of Energy and Climate Change. Role of Ipsos MORI – to gather information and opinions: personal views are valid and interesting, no right or wrong answers or behaviours, we're interested in the reality. Confidentiality: reassure participants that they are not being judged and confirm that participants comments will be treated as confidential and will be aggregated with feedback from other participants and will form part of a research report, but comments and any quotations used in this report will not be attributed personally to them or their organisation and will be kept anonymous. The final report will be published on the DECC website. Get permission to record – reassure that no identifiable attribution of quotes.	This is to put the interviewee at their ease and establish the ground rules for the interview – set expectations.
	<u>Background on the SME</u> Tell me briefly about your business: ▪ Main activities / areas of business ▪ Number of Sites ▪ Employees ▪ Your own role – main responsibilities Tell me about the business's energy consumption ▪ Explore all energy sources used (except transport fuels) and what for. ▪ Overall usage, if they know (per month or per annum) How many meters do they have? If multi-site, how centralised is energy management? Main activities that account for most energy usage within the business. How long have you had your smart/advanced meter? Interviewer note on definition of 'smart meter' and 'advanced meter': "Smart meter" is a term used to describe a range of intelligent meters. Typically, smart meters provide you with near real-time information on your energy consumption, often providing the information through a stand-alone monitor, or online. They also have two-way data communications, to and from the meter. This means energy suppliers have access to accurate data to enable accurate billing, removing the need for manual meter reads, plus they can send data to the meter, for instance to update tariffs remotely. Some businesses have what are known as "advanced meters". These are "intelligent meters" but they don't have	To establish background information on the SME, its energy usage and management, plus the interviewee's role in this. Energy sources include: gas, electricity, oil, bottled gas, renewable sources. Transport fuels are beyond scope of the research

Time	Key Questions	Notes
	the same level of functionality as smart meters. They also allow the supplier to access accurate data from the meter which can be fed back to the customer (usually online). But they don't have the two-way comms that smart meters have, so they can't be "managed" remotely by the supplier.	
15 mins	**<u>Attitudes to Energy Management</u>** <u>Current energy usage</u> What proportion of your operating costs are accounted for by energy consumption (excluding fuel costs)? ▪ If unsure probe for best guess, from the last billing period. How typical was that? ▪ If the proportion varies, what would you say was the annual average? Do you expect the amount of energy you use to increase or decrease over the next year/few years? How predictable / variable is your energy consumption? ▪ Probe on patterns of fluctuation throughout year, factors that can increase or decrease energy usage. How big an issue would you say energy costs and management are for your business? Have you taken any steps to try to reduce the amount of energy your organisation uses? ▪ Probe for whether invested in better insulation, renewables, changed requipment etc Explore interest in trying to take steps to reduce energy usage, <u>including use of renewables to reduce energy usage from traditional sources.</u> <u>Managing energy usage</u> When you are planning for the future generally is energy usage part of that process? ▪ If yes, what are you basing your plans on? Where do you get the information for your planning from? Probe for any mentions of smart meter data ▪ If no, why do you not include this in your strategies? Is this something you have considered within planning before but don't do anymore? Does your organisation actively manage the energy you use? ▪ If no, probe for: monitoring bills; monitoring current and future energy costs; shopping around for best energy deals; awareness of patterns in energy consumption; understanding peaks and troughs of demand and where the demands come from ▪ If yes, what do you do to manage your energy usage? Probe for the factors above and specific actions taken in each case Is there a specific person within the organisation who manages your energy usage/costs? ▪ If yes, how was it decided that this person should have this role? What would happen to your energy management if this person left the organisation?	This is to get an overall feel for where energy management sits as an issue within the business and establish where the business is now with it – current arrangements and the motivation or otherwise to take action NOTE: This is discussed in more detail later in this section and also in perceptions of smart meters INTERVIEWER NOTE: Please ensure renewables are discussed briefly as this is an area of interest in DECC

Time	Key Questions	Notes
	▪ If no, is this something you have considered in the past? Why did you not take this forward? Probe: lack of resource; lack of interest; lack of expertise; no perceived need for doing this. Is energy management an issue for your organisation? ▪ Probe for: forward cost control/planning your finances; energy security and/or guarantee of supply; reducing climate change; corporate responsibility Has the smart/advanced meter enabled you to better control your energy usage? In what ways? Why not? Probe for: accurate knowledge of energy costs, energy consumption patterns, better financial planning, financial forecasting e.g. can estimate better how much bills will be ability to shop for energy deals, made changes as a result of having greater understanding of energy usage e.g. changed machinery/appliances, upgraded building e.g. insulation, heating system etc <u>Energy service providers</u> Are you aware of any services which could help you to manage your energy consumption and costs? Probe for services provided by suppliers ▪ **If yes**: what services are these? Have you used any of them, either now or in the past? ▪ Can you name any of these organisations? ▪ How did you become aware of this sector? ▪ Have any of these organisations contacted your business direct? What were they offering to you? Were you interested in what they were offering? Why/why not? ▪ Did they offer you smart meter technology? How did you feel about the services they were offering? Did you trust the information they provided? ▪ What would you expect to pay for such a service? Probe on the three main types of consultancy (aM&T consultancy vs broader energy consultancy vs energy broker). ▪ **If not aware of energy service providers**: would you be interested in such a service? What would you expect such a service to provide to you? ▪ What services do you think that they offer to organisations? Probe for: offering business advice/ support on energy consumption, information about energy costs and managing energy costs, finding the best energy deal for your organisation ▪ What organisations do you think would be interested in using an energy services provider? Why would they be interested? ▪ How interested would you be in the services they offer? ▪ How much would you trust the information they provided, about smart meters specifically? ▪ Where would you expect to hear about this type of organisation? ▪ What would you expect to pay for such a service? Probe on the three main types of consultancy (aM&T	We also talk about energy service providers specifically later in the guide but might touch on it here also

Time	Key Questions	Notes
	consultancy vs broader energy consultancy vs energy broker). Background for interviewer – there are three main types of consultancy service around smart metering data: - automatic monitoring and targeting *(aM&T) consultancies*, which provide management systems which automatically collect energy consumption data and analyse it to ensure that energy use in line with the user's targets. The aM&T system includes the smart meters, automatic data collection, database collation and analysis and presentation of data. Larger systems use sub-meters to track and control use at an area or individual appliance level. - broader *energy management consultancies*, which use technology including smart metering to improve their clients' energy performance, typically through mapping, measuring and analysing consumption. *(Note that some consultancies combine both types of service)* - *energy brokers* help make their clients aware of opportunities available from energy suppliers and provide a channel for accessing better tariffs. All the energy suppliers make use of brokers. Brokers fall into three main types: (1) brokers who sell on behalf of the Big 6 energy suppliers, (2) brokers who are focussed just on finding the cheapest supply deals for their clients and (3) brokers who also offer value-added services such as energy management consultancy. What do you perceive as the main advantages to working with such an organisation in relation to smart meter technology (compared to other options for energy management)? Why? Main disadvantages? Why? If possible, show selection of stimulus materials – example of each type of consultancy. <u>Barriers to energy management</u> ▪ What puts you (or others in the business) off doing more around energy management? ▪ What are the perceived costs (in short term and longer term)? Are you aware of any sources of information about energy management? If yes, what sources? Which are most useful? Which are the most trusted sources? Probe on any mention of energy brokers and consultants. Note for interviewers on brokers and consultants: distinguish between: - energy brokers, who are focussed on energy supply and who secure an energy tariff on behalf of SMEs (sometimes doing deals with suppliers by pooling several SMEs together) - energy consultants who give fee-based advice to a business on how it can reduce of energy costs / change energy usage behaviour in the business.	

Time	Key Questions	Notes
5 mins	**<u>Supplier relationship</u>** I'd like to spend a little time talking about your current energy supplier? ▪ Firstly, who is your current energy supplier? ▪ How long have you been with this supplier? If moved recently: why did you change energy supplier? ▪ Does having a smart meter make you less likely to consider moving to a different energy supplier? Why/why not? ▪ What sort of relationship do you have with your energy supplier? ▪ Do you have any special arrangements with your energy supplier? Probe for: longer/shorter bill payment times, discount structures, capped rates, agreed frequency of meter reading, etc <u>Assistance with energy management</u> ▪ How much help do you get from your energy supplier with energy management issues? ▪ What do they do for you, e.g. provide information directly, visits, online help, smart metering, personalised energy reports, additional information on bills, online reports ▪ Are these services charged for? ▪ What would you like them to do that they are not currently doing? ▪	Explores the relationship with the existing energy supplier and how much (and what types of) help/support SMEs would expect to get from their energy suppliers in relation to energy management and smart meters.
5-10 mins	**<u>The decision process</u>** Thinking now about how you decided to have a smart /advanced meter. Was it your organisation's decision to install a smart meter? <u>If no:</u> Was it already installed? How were you told that you were to have a smart meter? What led to that decision? How did/do you feel about that decision <u>If yes</u>: ▪ Where did you first hear about smart/advanced metering? ▪ What did you think initially about it? Pros and cons. ▪ What were your main reasons for going for a smart meter? ▪ What did you do / where did you look for further information? What was the most useful source? Why was it useful? *If possible, interviewee to show any communication materials they have and talk through impressions.* ▪ What were the main reasons for your business getting a smart meter? ▪ What were your expectations for the smart meter? ▪ What difference were you hoping it would make (e.g. to energy costs, energy management, business practices)? ▪ What drawbacks or issues relating to smart meters did you consider? How significant were these? What were	Explores the dynamics of the decision making process in the organisation and what (if anything) has changed in the intervening time.

Time	Key Questions	Notes
	the most pressing arguments against getting a smart meter? ▪ What role did cost – real or perceived – play in your decision? <u>Ask all</u> As an organisation, did you have any discussions internally about having a smart meter installed? If yes: who was involved in the discussions? ▪ What did you discuss? ▪ What were the arguments for and against installing a smart meter? Probe on barriers around installation e.g. • shutting off power for a period; • worries about remote meter reading or cutting off of supply; • worries about malfunctions or teething problems with meter • data security • safety issues • costs ▪ How much of a consensus was it to go ahead with the installation? How easy or difficult was the decision? If no: who made the decision to have the smart meter installed? • How did other people in the business feel about it? • Has opinion within the business towards smart metering changed since it started? Why? Are the people/is the person who led the decision to have a smart meter still with the organisation? If no: how has your usage and perceptions of the smart meter changed since they left?	NOTE: probe carefully/ sensitively. The aim is to find out if SMEs have any concerns not to raise previously unconsidered concerns.
5-10 mins	**<u>Installation process</u>** I'd like to talk about the installation of your smart/advanced meter now. What was your role in relation to the installation process? ▪ Were you personally present on the day? Who (else) was there? What information were you given by your energy supplier about the installation before it happened? If any information given: ▪ How useful was this information? ▪ Did it give you all the details you needed? ▪ What information didn't it give you? Tell me about the installation process: ▪ How long did it take? ▪ Was there anything unexpected involved (e.g. things you had to do you weren't expecting) ▪ How well was it explained? ▪ Was the installation process disruptive to your organisation? If yes: ▪ In what way? ▪ How much disruption were you expecting?	Explores (briefly) perceptions of smart meters and attitudes to them. Mainly investigates the installation process, how well this was handled and how it could be improved.

Time	Key Questions	Notes
	▪ How could this have been avoided/ reduced? ▪ Is there anything that could have been done to reduce the impact of the installation? How did you plan for the installation process? ▪ Who was involved in planning for the installation? Probe for energy supplier role and any other parties ▪ How long did you have to plan for the installation? ▪ What if anything could have made the installation process easier? Was there an upfront cost for your meter? Did the installer talk to you about anything else (e.g. supplier products, energy efficiency advice, signposting further information)? Overall, how well do you think the installation was managed? What, if any, follow-up did you have from your energy company/installer? Probe for follow up telephone calls, emails etc What, if any, additional support would you have liked from your energy company/installer after your smart meter was installed? Probe on: technical support by phone, further visits, online information, information on additional services.	
15 mins	**<u>Perceptions of smart meters and benefits</u>** In your view, what, if any are the benefits of smart meters? ▪ ALLOW TIME FOR ALL SPONTANEOUS MENTIONS BEFORE PROBING ON THE LIST BELOW ▪ Probe for: o Cost savings o Avoiding doing meter readings o Ability to more closely monitor energy usage within the business o Ability to make changes that will potentially reduce energy usage as a result of having greater understanding of energy usage e.g. changed machinery/appliances, upgraded building e.g. insulation, heating system etc o Ability to verify bills o End to estimated bills o Accessing additional energy services (e.g. Business Energy Insight through BG) that provide more information on usage over the course of the day/week/month and advice ways to reduce usage What, if any, are the disadvantages? ▪ Probe to see if they have considered issues around: o shutting off power for a period, eg for installation; o worries about remote meter reading or cutting off of supply; o worries about malfunctions or teething problems with meter o data security o safety issues o cost of meter	Covers perceptions of the perceived benefits and disadvantages of smart meters, including billing changes Specifically looks at the role of DECC in promoting smart meters to SMEs

Time	Key Questions	Notes
	Advocacy Would you recommend a smart meter to other organisations like yours? Probe for: • What would you tell them ▪ What information do you think they would need ▪ Where would it be best for them to find out such information ▪ Who should provide the information? Would you tell them about any disadvantages? • What would you tell them ▪ What information do you think they would need ▪ Where would it be best for them to find out such information **Energy bills and billing** I want to talk now about how you pay for energy. How do you get billed for the energy you use? ▪ Probe for: frequency of bills; negotiated/special rates with suppliers; payment terms ▪ How satisfied are you with the clarity of your bills? If possible, compare how you see bills before and since starting smart metering. ○ How easy are they to understand? ○ How clearly is the information presented? ○ What helps / hinders clarity here? Tell me about how you manage paying your energy bills now? ▪ Probe: awareness of how much energy is used; awareness of billing period; awareness/tracking energy costs Tell me about any differences you have experienced in billing between having an ordinary and a smart meter. Did you experience any issues with your first bill following the installation of your smart/advance meter e.g. was it higher than expected? ▪ If yes, was that because you had paid too much or too little under estimated billing? Did you know about this difference in advance? Were you able to plan for any extra costs? ▪ Was there a big difference in your typical bills? ▪ Was there a big adjustment to make? ▪ Would you say you were more or less satisfied with how you are billed now compared to before you had your smart or advanced meter installed? ▪ How confident are you in the accuracy of your bill (now and before smart metering)? Why?	
10 mins	**Using the smart meter and information it produces** We've talked already about whether you use any services which could help you to manage your energy consumption and costs, I'd like to talk now about the information which the smart meter can provide for your organisation in a bit more detail.	Investigates awareness and usage of the advice and information services available from smart meters.

Time	Key Questions	Notes
	Do you know what information your smart/advanced meter can enable you to access? ▪ Probe for: half hourly usage records, patterns of energy consumption, peaks and troughs in consumption, seasonal variation. If yes: ▪ How did you find out about the information that is available? ▪ How did you find out how to access and use the data available? Do you access the information your smart/advanced meter produces? Is this for both gas and electricity (if have a smart meter for both) if no: - Why don't you access information on gas/electricity but you do for gas/electricity? If yes: How do you access the information your smart meter produces? INTERVIEWER NOTE – If possible and appropriate to ask respondent to show you the reports etc they access then please do so and discuss Probe: through my bill, through online reports, through more detailed information on the bill, other • And how do you use this information? Probe for: just to check the bill is correct, monitoring and planning for energy costs, monitoring and planning for energy use ▪ What are the main benefits your organisation gets from using the data available from your smart meter? ▪ Who uses the information from the smart meter? Probe for: energy manager, finance team, strategic management team, others who are energy users or planners but not directly responsible for energy management, external consultants ▪ In what format is the information you use – what do you see and how is it presented? ○ Probe on whether they are looking at raw data in detail, what forms of summary data are useful and why ▪ e.g. consumption data per meter, consumption data across all meters ○ Which form of smart meter-derived information do you find the most useful? Why? ○ To what extent are they using information direct from the meter themselves vs using analysis from energy management consultants vs summary information from energy supplier or from an energy broker? ○ if using third party analysis, what are the key pieces of information they provide you? Why are these particular pieces of information important for your business? How easy or difficult is it to get this information, understand it and use it? ○ How do you use it? How do others in the business use it (if different)? If not using the smart meter data: ▪ Why are you not using this data?	NOTE: if possible get hard copies of report – we will anonymise if necessary

Time	Key Questions	Notes

	▪ Probe for: unaware that the meter could produce this data, do not know how to access the data, do not know how to interpret the data
	▪ How would you like to be informed about the data available from your smart meter?
	▪ How would you like to be informed about additional energy services (e.g. Business Energy Insight through BG or services of energy consultant) that provide more information on usage over the course of the day/week/month and advise ways to reduce usage
	
	▪ Would you expect to pay extra for such services? If so, at what rate?
	▪ Where would you expect to get this information from? Probe for energy supplier, energy services provider, consultant etc
	
	ASK ALL
	- Would you be interested in accessing data from your smart meter in any other formats e.g. an In-home display, via a smart phone – any other thoughts
	If already accessing smart meter data
	-And would you prefer to access your data via any of these alternative sources or would you prefer to continue accessing it in the way you currently do
	
	ASK ALL
	-What would be your ideal way of accessing the data from your smart meter (whether available or not to them currently)
	
	If using smart meter data
	- And have you made any changes to the way your business operates or the premises themselves as a result of accessing the data? Probe for:
	  ○ Changing machinery, appliances that you realised were using a lot of energy
	  ○ Turning things off that were previously left on more than they needed to be
	  ○ Changed aspects of the premises e.g. upgrading heating systems, changing lighting etc
	- Has the way in which you use the data from your smart meter changed at all over time e.g. initially used to find out what machinery/appliances etc were using most energy and now use more for forecasting etc?
	
	▪ How interested are you in further services that are likely to be available to smart meter users in the future? Probe:
	  ○ Smart tariffs?
	  ○ Automated DSR?
	▪ In each case, what would be the benefit to your business?
	▪ What other services around metering might be useful to your business (whether currently existing or not)?
		SHOW STIMULUS OF IHD, SMART PHONE APPS ETC

15	**<u>Information sources</u>**	

Time	Key Questions	Notes

mins	What information have you seen about smart meters?
	▪ Where did you see it?
	▪ How recent/up to date was the information?
	▪ What format was the information in (website, printed leaflets from suppliers/energy service companies, word of mouth, literature from trade show, discussions with energy supplier, Carbon Trust report etc)
	▪ Who produced the information?
	▪ Who do you think would produce the most trustworthy information about the benefits and disadvantages of smart meters? Probe for different sources for different types of information – if so how does it split. Where would you find this information and in what format would it be?
	▪ Who do you think would produce the "best" information – in terms of clarity of information and explanations?
	
	Did you look for information from different sources?
	▪ If yes: which sources? Did the information differ? In what ways? Which were most reliable? Which source did you trust the most? Why?
	▪ What did you do / where did you look for further information? What was the most useful source? Why was it useful? *If possible, interviewee to show any communication materials they have and talk through impressions.*
	▪ If no: why didn't you look for alternative sources of information?
	
	<u>For all participants</u>
	*Show, using paper materials and/or laptop as appropriate (those marked *are the core materials we will show everyone; the others can also be used, as needed):*
	1*. Video: Energy UK Smart meters animation: http://www.energy-uk.org.uk/videos/smart-meters-swf.html
	2*. *Which?* What is a smart meter
	3. E-On smart meters promotional letter
	4. British Gas – from website, "Say goodbye to estimated bills with a smart meter for your business."
	5*. Corona – automated meter readings (slightly more technical language and referring to value-add services)
	6*. MeterWeb leaflet – combination of colourful visuals with more focus on value-add services.
	7. Emagine web page (example of more complex [building] energy management systems).
	8. British Gas video - How to install your smart meter http://www.which.co.uk/energy/creating-an-energy-saving-home/guides/smart-meters-and-energy-monitors-explained/getting-a-smart-meter-installed/
	
	For each of the materials, probe:
	▪ What information is most important?
	▪ What stands out?
	▪ What impression does this give of smart meters?
	▪ How persuasive is it?
	▪ How could this material be improved?
	  ○ Probe: what could they add, leave out, say differently?
	  ○ How could this be better presented?
	  ○ How could it be made more clear?
		Explores what information participants have seen/recall, what information they think should be out there, where they would look for information about smart meters and the formats such information should be available in. Also recall of information seen in the past and trustworthiness of various sources.
		
		Looks specifically at reactions to some promotional materials to explore the breadth of information required in making decisions about smart meters.
		
		The asterisked materials are the one to show in all interviews – they seek to cover a spread from simple to more complex language and services.

Time	Key Questions	Notes
	○ Overall, what are the best ways to engage SMEs like your business in these issues? ○ On smart meter awareness? ○ On energy efficiency? ▪ To what extent does this material address the questions in your mind about smart meters? ○ What is left unexplained for you? ○ What would be the best way to get that message across to you? ▪ What impression does it give of smart metering overall? What makes you say that?	
5 mins		Explores awareness and perceptions of energy service provides. Knowledge and experience of the services they provide. Perceptions of their trustworthiness in providing information and advice on smart meters.
5 mins	**<u>Round up/Close</u>** To sum up, what are your overall feelings about smart meters? How much difference do they make to your business? What is the most effective way to tell businesses about these benefits and persuade them to switch? What was the key factor that worked for you? Would you be willing to take part in further research on behalf of DECC about smart meters and energy management? **Thank and close, incentives**	A chance for participant to give any final thoughts Record contact details, explain contact details will be separated from comments before being given to DECC.

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SMEs without Smart Meter

For interviewer: overview of main objectives for the project
Among the sample of SMEs, including businesses with and without smart meters (and here 'smart meter' includes advanced meters):

- *to explore awareness and understanding of smart meters and related products and services;*
- *to assess views of energy management for the business;*
- *to identify and understand the perceived benefits associated with smart meters and, among users, the actual benefits experienced;*
- *to explore experiences and perceptions of different types of feedback services;*
- *to assess the extent to which those who already have smart or advanced metering are utilising the services available.*
- *to understand the customer journey that current users went through in getting their smart meter;*
- *to identify and explore the barriers to having smart metering installed.*

Interviewer to bear these in mind throughout.

While all those who take part can provide views on the general topics (energy management, awareness information/ advice/ support available energy service providers), SMEs without a Smart Meter fall into a number of groups, each of which allows us to explore different perspectives

Group	Perspective they can provide
No smart meter, not aware of smart meters	Perceptions of smart meters and benefits they provide Attractiveness of the current offering Preferred sources of information and types of information sought
No smart meter, aware of smart meters, not interested	Perceptions of smart meters and benefits they provide Attractiveness of the current offering and what put them off Preferred sources of information and types of information sought – credible sources, persuasive arguments
No smart meter, aware of smart meters, would like a smart meter	Perceptions of smart meters and benefits they provide Attractiveness of the current offering What prevents them from having a smart meter – how to overcome these barriers Preferred sources of information and types of information sought – credible sources

Time	Key Questions	Notes
10 mins	**<u>Interviewer Introduction</u>** Introduce self, Ipsos MORI, and explain the aim of the interview. Explain that this research is about energy management and metering among SMEs. The research is on behalf of The Department of Energy and Climate Change Role of Ipsos MORI – to gather information and opinions: personal views are valid and interesting, no right or wrong answers or behaviours, we're interested in the reality. Confidentiality: reassure participants that they are not being judged and confirm that participants comments will be treated as confidential and will be aggregated with feedback from other participants and will form part of a research report, but comments and any quotations used in this report will not be attributed personally to them or their organisation and will be kept anonymous. The final report will be published on the DECC website. Get permission to record – reassure that no identifiable attribution of quotes. <u>Background on the SME</u> Tell me briefly about your business: ▪ Main activities / areas of business ▪ Number of Sites ▪ Employees ▪ Your own role – main responsibilities Tell me about the business's energy consumption ▪ Explore all energy sources used (except transport fuels) and what for. ▪ Overall usage, if they know (per month or per annum) How many meters do they have? If multi-site, how many meters do they have? How centralised is energy management? Main activities that account for most energy usage within the business.	This is to put the interviewee at their ease and establish the ground rules for the interview – set expectations. To establish background information on the SME, its energy usage and management, plus the interviewee's role in this. Energy sources include: gas, electricity, oil, bottled gas, renewable sources. Transport fuels are beyond scope of the research
10 mins	**<u>Energy bills and billing</u>** We talked earlier about how many meters you have on site, I want to talk now about how you pay for energy. How do you get billed for the energy you use? ▪ Probe for: frequency of bills; estimates or accurate readings; negotiated/special rates with suppliers; payment terms; how clearly is the billing information presented ▪ How satisfied are you with the clarity of your bills?	Explores existing billing arrangements, and any deals or special arrangements in place

Time	Key Questions	Notes
	○ How easy are they to understand? ○ How clearly is the information presented? ○ What helps / hinders clarity here? Tell me about how you manage paying your energy bills? ▪ Probe: awareness of how much energy is used; awareness of billing period; awareness/tracking energy costs How much of a problem to you is estimated billing? Does it happen frequently? Do you check or query your energy bills when they arrive? ▪ If yes, how do you do this? Why? What do you do if you disagree with the bill? What happened when you disagreed with the bill? How did this get resolved? ▪ If no, why not? Have you ever suspected that your bills were wrong or too high? Would you know if your bills were too high or wrong?	
15 mins	**<u>Attitudes to Energy Management</u>** <u>Current energy usage</u> What proportion of your operating costs are accounted for by energy consumption (excluding fuel costs)? ▪ If unsure probe for best guess, from the last billing period and ask if that was typical or how it differed from other billing periods. If varies then what would you say was the annual average? Do you expect the amount of energy you use to increase or decrease over the next year/few years? How predictable / variable is your energy consumption? ▪ Probe on patterns of fluctuation throughout year, factors that can increase or decrease energy usage. How big an issue would you say energy costs and management are for your business? When you are planning for the future generally is energy usage part of that process? ▪ If yes, what are you basing your plans on? Where do you get the information for your planning from? ▪ If no, why do you not include this in your strategies? Is this something you have considered within planning before but don't do anymore? Have you taken any steps to try to reduce the amount of energy your organisation uses? Probe for whether invested in better insulation, renewables, change equipment etc <u>Managing energy usage</u> Explore interest in trying to take steps to reduce energy usage <u>including use of renewables to reduce energy usage from traditional sources.</u> Does your organisation actively manage the energy you use? ▪ If no, probe for: monitoring bills; monitoring current and future energy costs; shopping around for best energy deals; awareness of patterns in energy consumption;	This is to get an overall feel for where energy management sits as an issue within the business and establish where the business is now with it – current arrangements and the motivation or otherwise to take action NOTE: this appears later in the section too Please ensure renewables are discussed briefly as this is an area of interest in DECC

Time	Key Questions	Notes
	understanding peaks and troughs of demand and where the demands come from ▪ If yes, what do you do to manage your energy usage? Probe for the factors above and specific actions taken in each case. How/where do you get this information? Is there a specific person within the organisation who manages your energy usage/costs? ▪ If yes, how was it decided that this person should have this role? What would happen to your energy management if this person left the organisation? ▪ If no, is this something you have considered in the past? Why did you not take this forward? Probe: lack of resource; lack of interest; lack of expertise; no perceived need for doing this. Is energy management an issue for your organisation? ▪ Probe for: forward cost control/planning your finances; energy security and/or guarantee of supply; reducing climate change; corporate responsibility <u>Barriers to energy management</u> If you were to take further action on managing the energy usage of your business, what would it be? ▪ Why? ▪ What needs to happen before you would take that action? ▪ Who would be involved in the decision? ▪ What arguments would people put forward for and against taking further action? ▪ What other reasons might you have for taking measures in relation to energy management – what are your main concerns in this area? ▪ Where would you get information about your current energy usage to help plan for the future? What puts you (or others in the business) off doing more around energy management? ▪ What are the perceived costs (in short term and longer term)? ○	We also talk about energy service providers specifically later in the guide but might touch on it here also
5 mins	**<u>Supplier relationship</u>** I'd like to spend a little time talking about your current energy supplier? ▪ Firstly, who is your current energy supplier? ▪ How long have you been with this supplier? If moved recently: why did you change energy supplier? ▪ What sort of relationship do you have with your energy supplier? ▪ Do you have any special arrangements with your energy supplier? Probe for: longer/shorter bill payment times, discount structures, capped rates, agreed frequency of meter reading, etc ▪ How much help do you get from your energy supplier with energy management issues? ▪ What do they do for you, e.g. provide information directly, visits, online help,, personalised energy	Explores the relationship with the existing energy supplier and how much (and what types of) help/support SMEs would expect to get from their energy suppliers in relation to energy management.

Time	Key Questions	Notes
	reports, additional information on bills, online reports ▪ Would you choose to ask your current energy supplier for advice/support on energy management, or would you go elsewhere? Why is that? ▪ Are these services charged for? ▪ What would you like them to do that they are not currently doing?	
15 mins	**<u>Awareness of smart or advanced meters</u>** Interviewer note on definition of 'smart meter' and 'advanced meter': "Smart meter" is a term used to describe a range of intelligent meters. Typically, smart meters provide you with near real-time information on your energy consumption, often providing the information through a stand-alone monitor, or online. They also have two-way data communications, to and from the meter. This means energy suppliers have access to accurate data to enable accurate billing, removing the need for manual meter reads, plus they can send data to the meter, for instance to update tariffs remotely. Some businesses have what are known as "advanced meters". These are "intelligent meters" but they don't have the same level of functionality as smart meters. They also allow the supplier to access accurate data from the meter which can be fed back to the customer (usually online). But they don't have the two-way comms that smart meters have, so they can't be "managed" remotely by the supplier. I'd like to talk about smart and advanced meters now. Have you ever heard of smart or advanced meters? <u>If aware of smart/advanced meters</u>: ▪ How did you become aware of them? ▪ Can you tell me what they are? ▪ Probe for: monitoring energy usage directly, accurate billing, feedback /advice on improving energy usage, supplier ability to turn off supply directly What do you think are the benefits smart meters? ▪ Probe for: ▪ Cost savings ▪ Avoiding doing meter readings ▪ Ability to more closely monitor and understand energy usage within the business ▪ Ability to make changes that will potentially reduce energy usage as a result of having greater understanding of energy usage e.g. change machinery/appliances, upgrade building e.g. insulation, heating system etc ▪ End to estimated bills ▪ Accessing additional energy services (e.g. Business Energy Insight through BG) that provide more information on usage over the course of the day/week/month and advice ways to reduce usage What, if any, do you think might be the disadvantages?	Explores awareness of smart meters as a concept and attitudes to them. Also covers perceptions of the perceived benefits and disadvantages of smart meters For those who are not aware of smart meters it also introduces the subject and establishes initial reactions to and interest in the concept.

Time	Key Questions	Notes
	SHOW STIMULUS DESCRIBING SMART METERS – Which? document "What Is A Smart Meter" ▪ Is this a fair representation of smart meters? What is it missing? What does it have that you didn't know before? ▪ Have you considered installing a smart meter? What were the arguments for and against installing? ▪ What did you see as the impact of having a smart meter on your business? ▪ Why did you decide not to install a smart meter? <u>If not aware of smart meters</u> ▪ What do you think they are? ▪ Probe for: monitoring energy usage directly, accurate billing, feedback /advice on improving energy usage, supplier ability to turn off supply directly THEN SHOW STIMULUS DESCRIBING SMART METERS– Which? document "What Is A Smart Meter" From the document what do you think are the advantages of a smart meter? ▪ Probe for: ▪ Cost savings ▪ Avoiding doing meter readings ▪ Ability to more closely monitor energy usage within the business ▪ Ability to make changes that will potentially reduce energy usage as a result of having greater understanding of energy usage e.g. change machinery/appliances, upgrade building e.g. insulation, heating system etc ▪ Ability to verify bills ▪ End to estimated bills ▪ Accessing additional energy services (e.g. Business Energy Insight through BG) that provide more information on usage over the course of the day/week/month and advice ways to reduce usage What are the disadvantages? ▪ Would you be interested in having a smart meter installed/ Why/why not? ▪ What would stop you from having a smart meter installed? ▪ What do you think the impact if having a smart meter would be on your business?	
20 mins	**<u>Information sources</u>** <u>If already aware of smart meters</u> ▪ What information have you seen about smart meters? ▪ Where did you see it? ▪ How recent/up to date was the inforamtion? ▪ What format was the information in (website, printed leaflets from suppliers/energy service companies, word of mouth, literature from trade show, discussions with energy supplier, Carbon Trust report etc) ▪ Who produced the information? ▪ Did you look for information from different sources?	Explores where participants would look for information about smart meters and the formats such information should be available in. Also recall of information seen in the past and trustworthiness of various sources. Looks specifically at reactions

Time	Key Questions	Notes
	○ If yes: Which sources? Did the information differ? In what ways? Which were most reliable? Which source did you trust the most? Why? ○ If no: why didn't you look for alternative sources of information? ▪ Did you keep any of this information? If yes, what was it that prompted you to keep the information? ▪ Where would you look for more information? ▪ Who would you prefer to get information about smart meters from? ▪ Who do you think would produce the most trustworthy information about the benefits and disadvantages of smart meters? Probe for different sources for different types of information – if so how does it split. Where would you find this information and in what format would it be? ▪ Who do you think would produce the "best" information – in terms of clarity of information and explanations? <u>If not aware of smart meters</u> ▪ What information would you like to see about smart meters? Probe for: specific topics to cover, case studies, benefits/disadvantages, reasons/rationale for changing to smart meter ▪ Where would you expect to see it? ▪ What format should the information be in (website, printed leaflets from suppliers/energy service companies, word of mouth, literature from trade show, discussions with energy supplier, etc) ▪ Who should produce the information? Why ▪ Who would you prefer to get information about smart meters from? ▪ Who do you think would produce the most trustworthy information about the benefits and disadvantages of smart meters? Probe for different sources for different types of information – if so how does it split. Where would you find this information and in what format would it be? ▪ Where would you look for this information? Why there? <u>For all participants</u> *Show, using paper materials and/or laptop as appropriate (those marked *are the core materials we will show everyone; the others can also be used, as needed):* 1*. Video: Energy UK Smart meters animation: http://www.energy-uk.org.uk/videos/smart-meters-swf.html 2*. *Which?* What is a smart meter (Note: already shown) 3. E-On smart meters promotional letter 4. British Gas – from website, "Say goodbye to estimated bills with a smart meter for your business." 5*. Corona – automated meter readings (slightly more technical language and referring to value-add services) 6*. MeterWeb leaflet – combination of colourful visuals with more focus on value-add services. 7. Emagine web page (example of more complex [building] energy management systems). 8. British Gas video - How to install your smart meter http://www.which.co.uk/energy/creating-an-energy-saving-home/guides/smart-meters-and-energy-monitors-	to some promotional materials to explore the breadth of information required in making decisions about smart meters. If possible ask to see the information they have The asterisked materials are the one to show in all interviews – they seek to cover a spread from simple to more complex language and services.

Time	Key Questions	Notes

	explained/getting-a-smart-meter-installed/
	
	For each of the materials, probe:
	▪ What information is most important?
	▪ What stands out?
	▪ What impression does this give of smart meters?
	▪ How persuasive is it?
	▪ How could this material be improved?
	  ○ Probe: what could they add, leave out, say differently?
	  ○ How could this be better presented?
	  ○ How could it be made more clear?
	  ○ Overall, what are the best ways to engage SMEs like your business in these issues?
	  ○ On smart meter awareness?
	  ○ On energy efficiency?
	▪ To what extent does this material address the questions in your mind about smart meters?
	  ○ What is left unexplained for you?
	  ○ What would be the best way to get that message across to you?
	▪ How persuasive is it?
	▪ What impression does it give of smart metering overall? What makes you say that?	

5 mins	**<u>Energy advice/information services</u>**
	
	One of the benefits of smart meters is that they allow organisations to see the patterns in the energy they use. There is a range of services related to smart meters available, helping businesses purchase their energy more efficiently and helping them to map, measure, analyse and manage their energy consumption.
	
	▪ Are any of these services of interest to you? Why/why not?
	▪ What kind of information would be useful for your business?
	▪ Would you expect to pay extra for such services? If so, at what rate?
	▪ Where would you expect to get this information from? Probe for energy supplier, energy services provider, consultant etc
	
	ASK ALL
	- What format would you be interested in accessing data from your smart meter e.g. online reports, an In-home display, via a smart phone – any other thoughts
	
	ASK ALL
	-What would be your ideal way of accessing the data from a smart meter
	
	▪ How interested are you in further services that are likely to be available to smart meter users in the future? Probe:
	  ○ Smart tariffs?
	  ○ Automated DSR?
	▪ In each case, what would be the benefit to your business?
		Investigates awareness of and attitudes to the advice and information services available from smart meters. Also covers interest in these services and expected information sources.
		
		SHOW STIMULUS OF ONLINE REPORTS, IHD, SMART PHONE APPS ETC

Time	Key Questions	Notes
	▪ What other services around metering might be useful to a business (whether currently existing or not)? ▪ ▪ If you did have a smart meter fitted, what support would you expect to see from your energy company or anyone else for businesses using these devices (after they are fitted)? Probe on: technical support by phone, further visits, online information, information on additional services. ▪ How would you expect your energy supplier to talk to you about these services? Probe on including them in a core package, opt-in, opt-out etc,	
5 mins	**<u>Energy Service providers</u>** Are you aware of any services which could help you to manage your energy consumption and costs? Probe for services provided by suppliers ▪ If yes: what services are these? Have you used any of them, either now or in the past? ▪ If no: would you be interested in such a service? What would you expect such a service to provide to you? In addition to your energy supplier, there are organisations which can provide other energy services. For example (if not already discussed): - automatic monitoring and targeting *(aM&T) consultancies*, which provide management systems which automatically collect energy consumption data and analyse it to ensure that energy use in line with the user's targets. The aM&T system includes the smart meters, automatic data collection, database collation and analysis and presentation of data. Larger systems use sub-meters to track and control use at an area or individual appliance level. - broader *energy management consultancies*, which use technology including smart metering to improve their clients' energy performance, typically through mapping, measuring and analysing consumption. *(Note that some consultancies combine both types of service)* - *energy brokers* help make their clients aware of opportunities available from energy suppliers and provide a channel for accessing better tarrifs. All the energy suppliers make use of brokers. Brokers fall into three main types: (1) brokers who sell on behalf of the Big 6 energy suppliers, (2) brokers who are focussed just on finding the cheapest supply deals for their clients and (3) brokers who also offer value-added services such as energy management consultancy. Are you aware of such organisations? If yes: ▪ Can you name any of these organisations? ▪ How did you become aware of this sector? ▪ Have any of these organisations contacted your business direct? What were they offering to you? Were you interested in what they were offering? Why/why not? ▪ Did they offer you smart or advanced meter technology? How did you feel about the services they were offering? Did you trust the information they	Explores awareness and perceptions of energy service provides. Knowledge and experience of the services they provide. Perceptions of their trustworthiness in providing information and advice on smart meters.

Time	Key Questions	Notes
	provided? ▪ What would you expect to pay for such a service? Probe on the three main types of consultancy (aM&T consultancy vs broader energy consultancy vs energy broker). If not aware: ▪ What services do you think that they offer to organisations? Probe for: offering business advice/ support on energy consumption, information about energy costs and managing energy costs, finding the best energy deal for your organisation ▪ What organisations do you think would be interested in using an energy services provider? Why would they be interested? ▪ How interested would you be in the services they offer? ▪ How much would you trust the information they provided, about smart meters specifically? ▪ Where would you expect to hear about this type of organisation? ▪ What would you expect to pay for such a service? Probe on the three main types of consultancy (aM&T consultancy vs broader energy consultancy vs energy broker). ▪ Have you ever been offered and if so taken up or not – explore reasons for uptake or rejection ○ if you have had support from an energy management company, who was it? What services did they offer?	
5 mins	**<u>Round up/Close</u>** To sum up, what are your overall feelings about smart meters? How interested are you in having a smart meter? If your energy supplier contacted you in the near future offering you a smart meter would you accept it? How much difference could they make to your business? What is the most effective way to tell businesses about these benefits and persuade them to switch? What was the key factor that would work for you? Would you be willing to take part in further research on behalf of DECC about smart meters and energy management? **Thank and close, incentives**	A chance for participant to give any final thoughts Record contact details, explain contact details will be separated from comments before being given to DECC.

Links to stimulus material used in the interview

Non-Domestic Market Smart Metering Q&A, Smart Metering Implementation Programme:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/87895/21Febnondomsmleaflet.pdf

Which? What is a smart meter:
http://www.which.co.uk/energy/creating-an-energy-saving-home/guides/smart-meters-and-energy-monitors-explained/what-is-a-smart-meter/

Energy UK Smart meters animation:
http://www.energy-uk.org.uk/videos/smart-meters-swf.html

British Gas smart meters for business:
http://www.britishgas.co.uk/business/products-and-services/energy-management/smart-metering.html?cid=BGR10001

Detailed online energy management system, Meterweb:
http://www.meterweb.com/datasheet.pdf

More complex (building) energy management systems:
http://www.emagine-controls.com/e-vision-11.html

Corona Energy, advanced meters:
http://www.coronaenergy.co.uk/corona-energy-amr

Department of Energy & Climate Change
3 Whitehall Place
London SW1A 2AW
www.decc.gov.uk

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