BERR | Department for Business Enterprise & Regulatory Reform

ENERGY BILLING AND METERING

Changing Customer behaviour

GOVERNMENT RESPONSE TO A CONSULTATION

APRIL 2008

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Contents

Executive Summary

In August 2007 the Government published its consultation, "Energy Billing and Metering – Changing Customer Behaviour, A Consultation on Policies Presented in the Energy White Paper"[1]. This consultation followed publication of the Energy White Paper in 2007 which underlined the Government's commitment to the reduction of carbon emissions and highlighted the role that individuals could play by reducing their own energy consumption. The consultation invited views on proposals to require:

- the provision of comparative historical consumption data on bills for all domestic gas and electricity customers;
- electricity suppliers to provide (where technically possible) a real-time display unit when a meter is replaced or newly installed in domestic premises;
- electricity suppliers to provide a real-time display to all consumers who request one until 2010; and
- gas and electricity suppliers to install smart meters in those parts of the SME sector, above a certain usage threshold, where it is cost-effective to do so.

Views were also invited on the Government's expectation that, over the next ten years, all domestic gas and electricity customers will be given smart meters with visual displays and on how smart metering could be delivered to smaller businesses.

The consultation closed for responses on 31st October 2007. The responses are available on the BERR website[2] and the key themes evident were:

- widespread support for a full roll-out of smart meters to all electricity and gas consumers, with differing views on how best to achieve a roll-out;
- support for the proposals for smart metering for businesses;
- broad support for the proposal to provide historical consumption data on energy bills, as long as flexibility was allowed in its provision; and
- a majority of respondents were for a variety of reasons against the proposals to require the provision of real-time display devices particularly in the context of a wider smart meter roll-out.

[1] Energy Billing and Metering: Changing Customer Behaviour – an Energy Review Consultation (www.berr.gov.uk/files/file35042.pdf)
[2] www.berr.gov.uk/energy/whitepaper/consultations/billing-metering/consultation-responses/page43790.html

There were few comments on the proposals covering heat metering and unlicensed suppliers. In neither area was there any support for Government intervention.

In addition to this consultation, the Government has also undertaken a detailed economic impact assessment of the costs and benefits of different options for rolling-out smart meters. The impact assessment was informed by analysis provided in consultation responses and independent analysis commissioned by BERR.

Following the consultation, the Government has taken decisions in the key areas covered. In summary, it will:

- require historical consumption data to be provided on all domestic customers' electricity and gas bills and statements (Section 2);
- request electricity suppliers to provide on a voluntary basis real-time display devices to particular customer segments, but will not pursue proposals for provision of such devices when a meter is replaced or newly-installed or for provision 'on-request' (Section 3);
- require electricity and gas suppliers to provide smart meters to all business customers above a certain usage threshold by 2013 (section 4); and
- to complete further economic assessment work and consultation to finalise policy position in respect of smart metering for small businesses and domestic consumers (Section 7).

Metering and billing changes are not envisaged for heating schemes or in respect of unlicensed supply, but this situation will be kept under review in respect of the ongoing Heat Call for Evidence (Sections 5 and 6).

In taking these decisions on metering and billing proposals the Government is also implementing the requirements of Article 13 of the Energy End-Use Efficiency and Energy Services Directive (Annex A).

The proposals set out here apply to Great Britain only.

Section 1: Introduction

1.1 In August 2007, the Government issued a written public consultation seeking views on proposals for energy billing and metering which had been outlined in the Energy White paper in May 2007. The White Paper proposals followed an earlier consultation on energy billing and metering, which concluded in February 2007. The closing date for the August 2007 consultation was 31 October 2007.

1.2 A list of those who responded publicly is at Annex A and copies of responses are available on the BERR website (see footnote 2). Ninety-eight responses were received and the respondents included: energy suppliers; meter manufacturers and metering service providers; manufacturers of real-time display devices; industry bodies; environmental organizations; trade bodies; consumer bodies; advisory organizations; public sector organizations; several individuals and other interested parties.

1.3 The Government is grateful to respondents for their time and thought. The views expressed have been carefully analysed.

Section 2: Billing

Introduction

2.1 The Government proposed that historic information, preferably in graphical form, which compares energy usage in one billing period with the same period the previous year, should be provided on domestic customers' energy bills or statements, or for those customers with internet-based contracts, electronically. The Government's intention was to allow flexibility in the provision of the information and allow suppliers to provide either the total energy used or average data, for example average energy used per day during the period.

2.2 The Government also proposed that:

- it would not require data to be corrected to take account of weather conditions;
- it would not require suppliers to provide comparative data to a consumer where a change of supply or occupancy had occurred within the previous twelve months; and
- the policies would cover domestic customers only.

2.3 The Government also sought views on the provision of energy efficiency advice on bills, including whether it was appropriate to give contact details for Energywatch as a source of energy efficiency information, and on the scope for the development of more energy efficiency and energy demand management services in the business sector.

2.4 The Government asked whether its proposals in this area posed any implementation issues for small suppliers.

2.5 Finally, the Government said it was not proposing at present to require suppliers to provide benchmark data on other energy users within given categories. The November 2006 consultation[3] had sought views on this, and following this the Government had accepted respondents' arguments that it would be difficult to achieve and maintain useful benchmarks owing to the diversity of consumer circumstances.

Historical Consumption Data on Domestic Energy Bills

2.6 Most respondents welcomed the proposal for historic data to be provided on bills and statements. The majority supported a flexible approach, with some arguing for complete flexibility and others supporting some minimum

[3] Energy Billing and Metering: Changing Customer Behaviour – an Energy Review Consultation, www.berr.gov.uk/consultations/page35260.html

requirements, such as for information always to be provided graphically. Many respondents noted that bills already contain a lot of information, and that customer feedback usually suggested a preference for simplicity and clarity.

Weather-corrected Data

2.7 A majority of those who responded on this point agreed with the Government's proposal not to require the provision of weather-corrected data. Arguments against providing weather corrected data were that it would be complex, costly, and provide little benefit for the consumer. Some respondents felt that explanatory information should be made available to consumers, for instance on suppliers' websites.

Change of Occupancy or Supply

2.8 About half of those who commented on this issue expressed concern that many customers would not be provided with historic data in the period following a change of supply or occupancy. Others, particularly energy suppliers, said it would be resource-intensive to transfer data in these circumstances, partly because of data protection requirements. They also argued that the effort involved would be disproportionate to resultant benefits.

2.9 Suppliers indicated a range of customers who would be affected by this proposal of between 12% and 40%.

2.10 This was an area where it was noted that the introduction of smart metering could make a difference, with consumers having opportunities to store their own historical data when they change supplier, or suppliers providing more data as a result of improved industry processes on customer transfer.

Small Business Customers

2.11 Some respondents felt the historical data requirements should be extended to include small business customers as they would find the information useful.

2.12 Against this, others argued that business customers' needs and requirements differed from those of domestic customers. Some suppliers said, for instance, that businesses varied considerably and needed tailored information about energy usage. They felt strongly that this was an area where they could innovate and compete in different ways for business.

Small Energy Suppliers

2.13 There were few comments on whether small suppliers should be allowed more time to implement the policies. The majority of those who commented were against allowing extra time, saying for instance that both large and small suppliers had to implement systems changes and the impact on both would be equivalent.

Energy Efficiency Advice

2.14 The majority of respondents felt there was no need for the Government to make any further requirements regarding energy efficiency information. Some drew attention to the existing standard Licence Condition for gas and electricity suppliers, 31.2-31.3[4], which requires suppliers to maintain information about efficient use of electricity and gas for domestic customers. Specifically, this requires information on the efficient use of energy so that customers can make informed judgments on measures to improve energy efficiency, plus details of sources of further energy efficiency information. Suppliers are required to provide this information free of charge upon request, by operating a telephone information service and by publishing the information and making on their websites. The six major suppliers confirmed through the consultation that they are providing information in line with this Licence Condition. Beyond this, many noted that a diverse range of advice was available from different sources, and some argued that there was a risk of confusing consumers if additional requirements were made.

2.15 As regards the contact details for Energywatch, many respondents said that Energywatch – or its successor – was not the most appropriate organisation for providing energy efficiency advice as this is not its main area of activity (its focus is on providing consumer advice and representation). Instead, if details of any organisation were to be provided it should be the Energy Saving Trust. However, many felt there was already too much information on bills and, given the amount of advice already being supplied by other means, it was inappropriate to require further contact details.

2.16 Similar views were expressed by respondents about energy efficiency advice for the business sector. Many agreed that there was significant scope for provision of advice but noted that the market was already developing without intervention. It was also noted that the recent Supply Licence Review[5] had resulted in the removal of an obligation on suppliers to provide energy efficiency advice to business customers and that the arguments against such an obligation had not changed substantially since then.

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[4] http://epr.ofgem.gov.uk/document_fetch.php?documentid=13041 and http://epr.ofgem.gov.uk/document_fetch.php?documentid=13008

[5] http://www.ofgem.gov.uk/Markets/RetMkts/Compl/SLR/Pages/SLR.aspx

Conclusions – Historical Consumption Data

2.17 The Government has concluded that it should implement the policy along the lines set out in the Consultation Document. The requirement will therefore be to provide historic information, which compares energy usage in one billing period with the same period the previous year, on all domestic customers' energy bills or statements or, for those customers with internet-based contracts, electronically.

2.18 The Government's view is that it would be preferable to provide this information in graphical form, but it will not make this a requirement as it accepts the arguments that energy suppliers should be allowed the flexibility to innovate and differentiate their offers in these areas. The data provided may be total energy used over the comparative period or average data. Where estimates are used in making the comparison this should be made clear on the bill, for both the billing period and the comparison period.

2.19 The requirement will not be extended to business customers at present. The Government accepted the view that business customers' needs and requirements differ from those of domestic customers, and that suppliers see this as an area for innovation and competition. It should also be noted that businesses falling into the categories detailed at paragraph 4.1 will benefit from the introduction of smart metering and therefore benefit potentially from far more data on their energy consumption.

2.20 There will be no requirement for suppliers to provide comparative data to consumers where a change of supply or occupancy has occurred within the previous twelve months. The Government recognises the concerns of some that a proportion of customers will not benefit from the data for certain time periods, but it notes the real difficulties and high costs in transferring customer data across suppliers.

2.21 There will be no requirement for data to be weather-corrected, given the complexity and costs of doing so. However, the Government would encourage suppliers to provide through other media – such as websites – background information on factors that might affect energy consumption.

2.22 The Government wishes to implement the policies as soon as possible but recognises that energy suppliers will need a certain amount of time to make the necessary changes to their billing systems. Balancing these two concerns, it will therefore require implementation of this requirement from 1 January 2009.

Conclusions – Energy Efficiency Information

2.23 The Government recognises that there is already a wide range of energy efficiency advice provided to domestic consumers. This area of activity is

supported by the existing Supply Licence Condition, which requires suppliers to maintain energy efficiency information, including contact details for further sources of advice. The Government has therefore concluded that there is no case at present to make any further requirements in this area.

2.24 With regard to business customers, the Government noted that there is already a growing market for the provision of a diverse range of energy efficiency advice. The Government accepted the argument that it should not, in effect, overturn the recent decision to remove the Supply Licence requirement for suppliers to provide such advice to businesses.

Conclusions – Benchmarking

2.25 The Government has not changed its position since the 2006 Billing and Metering consultation and will not at present require suppliers to provide benchmark data on other energy users within given categories. However smart metering could open up improved possibilities for collecting and maintaining data on different customer groups. The Government will therefore review its position on benchmarking in the light of any policy development on smart metering for domestic consumers.

Other issues

2.26 The question of whether customers' bills should also contain information on contributions to environmental measures (e.g. Renewables Obligation Certificates, charges from the EU Emissions Trading Scheme and charges from the Carbon Emissions Reduction Targets) has been raised in the context of proceedings on the Energy Bill. This was not an issue that was consulted on specifically with the August Metering and Billing consultation and it would therefore be inappropriate to make a detailed response here. However, this is an issue the Government will give further consideration to separately.

2.27 Information about the impact of these environmental measures on customers' bills is already usefully provided by Ofgem in a fact-sheet entitled "Household energy bills explained"[6]. The fact-sheet provides information about what consumers pay for through their energy bills (including towards the environmental measures mentioned above), in a format which is both easy to understand and which puts those contributions into context with the other elements of the bill.

2.28 Should we receive evidence in due course that consumers have an appetite for more in-depth information of this type on or with their bills, we will of course consider this matter further, including an analysis of the full costs and benefits as necessary.

[6] Ofgem Factsheet 66 – Household energy bills explained – published 15 Jan 2008 www.ofgem.gov.uk/Media/FactSheets/Documents1/energy%20prices%20jan08.pdf

Next steps

2.27 The Government will:

- as set out in paragraph 2.17, require energy suppliers to provide historic consumption data on all domestic customers' energy bills. It has laid a Statutory Instrument to amend supply licences to make this requirement effective from 1 January 2009.

Section 3: Real-Time Displays

Introduction

This part of the consultation related specifically to the separate distribution of standalone real-time display devices where a meter is replaced, where a new connection is made or where a customer makes a request. The approach to smart meters with displays is dealt with in chapter 7.

Summary of responses

3.1 The Government consulted on a variety of questions related to the provision of standalone real-time displays to provide real-time electricity consumption data to domestic consumers. It was noted that such devices were not available for gas. The Government proposed that from May 2008 displays would be provided to households having an electricity meter replaced or receiving a new connection. In addition it was proposed that for two years, from early 2008, displays would be made available free of charge to any household requesting one.

3.2 In general respondents (suppliers, consumer groups, Ofgem) did not support a Government mandated roll-out of standalone real-time display devices. Expressing a preference for a general roll-out of smart metering, many respondents thought that the provision of a standalone real-time display devices could have a negative impact on any roll-out of smart meters; diverting time and resources for a relatively small benefit. However some respondents did consider that a standalone real-time display device could offer some interim benefits taking into account that a smart meter roll-out could take a long period of time.

3.3 In addition respondents commonly cited a number of other concerns:

- standalone real-time display devices would only cover electricity consumption and are not available for gas;
- the fact that a standalone real-time display devices would not be 100% accurate could lead to more bill queries and potential customer dissatisfaction;
- wasted investment – displays would be made obsolete by the full roll-out of smart meters; and
- could undermine confidence in smart roll-out.

3.4 Some respondents raised questions over possible safety issues related to self installation of a standalone real-time display device and on the potential for an inequitable distribution of benefits, noting that whilst all customers will pay, only a small proportion would be likely to request and use such a standalone real-time display devices.

3.5 Display manufacturers and retailers offered arguments and data to support the overall energy savings stemming from the use of standalone real-time display devices. Experience had demonstrated that consumers reacted well to real time information on energy usage and cost. They considered that a high degree of accuracy was not a vital requirement, but rather the provision of real-time information on energy use to engage consumers to take action to reduce consumption. A universal roll-out of standalone real-time display devices was considered feasible on a two to three year timescale and manufacturing capability existed to fulfil this. Standalone real-time display devices were seen as both an interim measure and as an integral function of a smart meter. Some stakeholders argued that smart meters would have to have a display in order to provide benefits expected, although it was acknowledged that existing standalone real-time display devices will not necessarily work with smart meters, which may provide some forward compatibility and stranding issues.

3.6 Some respondents were concerned about the Impact Assessment presented with the consultation, arguing that the distribution of standalone real-time display devices would have an impact on a general roll-out of smart meters and this had not been taken into account in the economic analysis. It was argued that issues of forward compatibility and stranding – where a standalone real-time display device may not work with a new smart meter and have to be disregarded incurring a cost, this needed to be taken into account. Some respondents supplied detailed inputs challenging some of the assumptions in the impact assessment.

Conclusions

3.7 The Government has concluded that the provision of better information about consumption should help consumers engage with their energy use. For this reason (as set out at paragraph 7.19) the Government's view is that a standalone real-time display should be provided with a smart meter if the full environmental and energy efficiency benefits are to be generated from a roll out of smart metering. The Government does not accept all of the criticisms of its proposals for separate, early provision of real-time displays by suppliers, but notes the concerns that have been raised about the relationship between the separate provision of stand-alone real-time displays and the roll-out of smart meters.

3.8 The Government accepts that there are clear linkages between a roll out of displays in advance of smart meters and a roll out of smart meters in the future. As a result, in the light of the consultation responses and the fact that final decisions on smart meters will be taken at the earliest practicable opportunity following the initial results of the Energy Demand Research Project trials in November 2008, the Government has decided not to proceed with the requirements on suppliers to provide stand-alone real-time display devices on a new and replacement basis, nor with a mandated 'on-request' policy. The Government does, however, recognise that real-time displays have the potential

to help consumers reduce energy consumption and deliver early carbon savings, particularly in advance of a possible roll out of smart meters. The Government will therefore work with the suppliers to reach a voluntary agreement on how displays can be made available to customers in the short-medium term.

Next steps

3.9 The Government will:

- hold urgent discussions with electricity suppliers to assess how displays could best be made available to consumers in the short-medium term.

Section 4: Advanced Meters for Medium and Larger Businesses

Introduction

4.1 The Government proposed that around 200,000 larger businesses whose premises were not subject to mandatory half-hourly (electricity) or daily-read (gas) metering should be provided with advanced metering by 2012. In respect of electricity, the Government proposed that the businesses covered should be those falling in profile classes 5-8. In respect of gas, the Government proposed that those businesses covered should have annual consumption of over 732,000 kWh. Those in this category are defined as Large Supply Points under the Uniform Network Code, and are subject to periodic individual reconciliation of gas use. The Government has been made aware that a typographical error in the consultation document and the draft statutory instrument attached to it has led to references to a gas threshold of 73,200 kWh, this should have read 732,000kWh. The Government wishes to take this opportunity to clarify this point (see also para 4.22 below). The policy will affect approximately 170,000 electricity and 40,000 gas sites.

General

4.2 Respondents shared the Government's view that there was scope for significant energy savings by providing more advanced metering to customers in this sector. There was also broad support for the Government's policy proposals for realising these savings, with some caveats, which are described below.

Need for regulation

4.3 Some respondents thought regulation unnecessary because advanced metering was already being rolled out in the sector, and suggested a voluntary approach, or one based on more research and more closely targeted at those most likely to benefit.

Thresholds

4.4 Due to a typographical error the original August 2007 consultation document had not set out the correct threshold for gas, which was noted by some respondents. The correct thresholds are noted above in paragraph 4.1 and at 4.23 below. Some respondents were uncertain that, in electricity, profile classes were the right basis for activity. Some felt the policy would cover more sites than the Government anticipated. Some warned of spill-over between categories (the potential for businesses to move between categories of energy consumption), and the possible need to provide for this. Some suggested

adjusting existing thresholds for the mandatory half-hourly and daily-read markets.

Application to small suppliers

4.5 There was no body of support for delaying application of the policy to small suppliers.

Nomenclature

4.6 Some respondents referred to potential confusion around metering terms, particularly between the Automated Meter Reading (AMR) metering envisaged in this sector and the smart metering foreseen for the domestic sector, the data to be provided and the actual use of that data.

4.7 One respondent noted that the definition should ensure that retro-fit was acceptable. And that this would also conserve resources. In that context, other respondents noted that 20-30% of industrial and commercial diaphragm meters lacked a pulse output, for which Optical Character Recognition was not a satisfactory alternative and that not all existing meters could support smart technology. Any solution decided now could become obsolete as technology developed.

Stranding and interoperability

4.8 Respondents had views on the extent of legacy stranding and how it might be minimised. Most anticipated some stranding. Ofgem said that, as AMR was already being provided in this sector, stranding did not seem to be a significant problem. Some respondents felt that retro-fitting pulsed gas meters could avoid stranding, although it was noted that many older meters would be incapable of producing a pulsed output.

4.9 Ofgem said that, whilst interoperability was desirable, the market was operating without formal arrangements, and Government should not impose them. Others felt that the Government should set an interoperability requirement. To do so would, inter alia, prevent incumbents from refusing to supply metering services or setting a high price for them and would ensure that devices could communicate data in a common format.

Settlement

4.10 There was a general acceptance of the potential improvement that better data would create for settlement arrangements themselves, and for customers in terms of better understanding of price. Respondents also broadly accepted the need to adjust settlement arrangements for full benefits to flow.

4.11 Elexon said that, if half-hourly electricity data were required for settlement purposes, changes to the Balancing and Settlement Code (BSC) would be

required - that would be beneficial, and it was reviewing processes in expectation of this. Additionally, if suppliers were obliged to use half-hourly data from the proposal in settlement purposes, the profile classes themselves would become redundant.

4.12 Xoserve said that it already proposed a thoroughgoing review of settlement and reconciliation arrangements in light of metering developments. Xoserve also referred to its plans for implementing significant changes in systems by 2012, which would begin with a twelve-to-eighteen-month consultation from early-2008.

Data provision

4.13 There were various views on how data from AMR might be used. One supplier suggested that customers should access data via their supplier rather than direct from the meter. Another said that current arrangements around access to data flows should be revisited to ensure simultaneous access by suppliers and customers. One respondent said that suppliers should be required to use the data from AMR in bills.

Timetable

4.14 Most respondents believed the five-year timetable was achievable – some said the process could be completed faster. One respondent noted that manufacturers and installers would have five years of intensive work, followed by five years of inactivity.

4.15 A number of other issues were raised:

- The inaccurate nature of current metering created price opacity and prevented SMEs from accessing the dynamic wholesale market. Exposure to the prevailing price, with scope for resale to the supplier, would incentivise load-management by customers.
- Ofgem suggested that appropriate wording might need to be incorporated into the proposed Statutory Instrument to avoid a suppliers inability to fit leading to disconnection, whilst protecting suppliers against non-compliance.
- Some respondents were concerned about the treatment of the gas market. Meter Pulse Utilisation processes were complex, lacked clarity, and were not properly considered in the consultation. Processes and framework agreements were complex and differed between Meter Asset Managers (MAM) and the process was costly and time-consuming. Some MAMs and Distribution Network Operators did not have agreements permitting third party connections.

Conclusions

General

4.16 Given the positive impact assessment and the generally positive responses to the consultation, the Government has decided to move ahead with this policy, and has announced this in the 2008 Budget. The Government has concluded that the most appropriate method of implementation is via provisions in the Energy Bill. To this end it has tabled an amendment to the Energy Bill that will provide the necessary powers for implementation. The sites covered will be as set out at paragraphs 4.1 and 4.22.

Nomenclature

4.17 The Government proposes to clarify the language to avoid any customer or supplier confusion between AMR and smart metering as the latter term is used in the domestic sector. This will lead to minor adjustment of the text.

Data and settlement

4.18 The Government is continuing to discuss with Ofgem and other interested parties the need for any consequential changes to the Balancing and Settlement Code and the Uniform Network Code. It is also, subject to these discussions, considering whether to require the use, as well as the provision of, half-hourly or daily-read data by suppliers once advanced metering is installed.

Regulation

4.19 The Government accepts that advanced metering is gradually being rolled out in this sector, but it believes that its policy will accelerate this roll-out, and the energy savings that accompany it. It also believes that, in light of the evidence that significant energy savings can be made in this sector, a mandatory arrangement of the type it proposes will enable the Government to meet its obligations under the Energy Services Directive.

Thresholds

4.20 The Government recognises that, in this, as in other legislation, the setting of thresholds is a matter of judgment. Working with industry thresholds has the advantage of using categories that are straightforward and familiar to the industry and customers. It is also concerned to cover the businesses that can most benefit from early provision of advanced metering, in line with the Carbon Trust's findings on advanced metering in the larger SME market, which were, in turn, reflected in BERR's Cost Benefit Analysis of August 2007. It notes that there is nothing to prevent suppliers from developing offers for customers that are below the thresholds set by the draft regulation.

4.21 The Government agrees that profile and consumption categories are not immutable, and that it would be desirable to deal with any overlap between its proposal and its larger intention of providing smart meters to the smallest business customers and domestic customers. It is, therefore, considering how arrangements for the smallest businesses might best take the previous provision of advanced metering into account.

4.22 The concerns of some respondents about the proposed thresholds partly reflect the fact that the Government had, as some respondents pointed out, made in the consultation document text and the draft statutory instrument a typographical error that had led to its referring to a gas consumption threshold of 73,200 kWh per annum. These respondents were correct in noting that this should have read 732,000 kWh, which was the threshold beyond which the Carbon Trust found a positive case for advanced metering based on current costs, and which was used in BERR's Cost Benefit Analysis of August 2007.

Stranding, interoperability and market operation

4.23 The Government does not propose to make any arrangements in respect of stranding or interoperability. It will, however, discuss with Ofgem what might be done to facilitate interoperability arrangements among suppliers and other meter-owners. It will look to Ofgem to ensure that no abuse of market position by dominant actors in the metering market occurs.

Compliance

4.24 The Government is discussing with Ofgem whether the draft licence condition should address the treatment of suppliers in circumstances where a supplier has, despite its best endeavours, failed to install an advanced meter.

Next steps

4.25 The Government intends to:

- undertake a further short consultation in May to set out a finalised licence condition to implement this policy, and, in particular, to seek stakeholder views about the appropriate implementation date; and
- to introduce these licence conditions as soon as possible after the Energy Bill provisions come into force.

Section 5: Heating Schemes

Introduction

5.1 In the UK only a minority of households and businesses directly buy heat. Instead most consumers buy heating fuels or electricity and convert these locally into heat. However a small percentage of homes are heated by district heating schemes and there are some industrial parks where businesses buy heat directly in the form of piped hot water or steam.

5.2 This situation differs significantly from some other parts of Europe: district heating is widespread in central Europe, Nordic countries and the Baltic region. In some countries it makes up over 50% of heat delivery to the residential, service and agricultural sectors. The recently published Heat Call for Evidence[7] considers how heat is used and how its carbon emissions can be reduced and aims to improve the Government's understanding of heat and inform possible future measures. Amongst other things, it invites views on Government policies on district heating. Specifically, it asks for evidence to demonstrate the cost-effectiveness or otherwise or district heating in reducing emissions and what policies the Government could pursue to promote or facilitate district heating.

Metering and Billing

5.3 The Government expressed its view in the consultation that there should not be a requirement for the installation of individual meters for final customers in heat schemes on the basis that it would not be financially reasonable, or proportionate in relation to the potential energy savings, to do so.

5.4 This view was based on responses to the previous metering and billing consultation[8] and data provided by a Building Research Establishment (BRE) report into heat metering, which showed that in the UK only about 4% of total building floor area and less than 2% of housing is served by district heating and of these two-thirds of the buildings and three-quarters of the dwellings are not metered[9]. The report showed that, across the district heat scheme sector as a whole, it is not cost-effective to install heat-metering in existing heat schemes, new schemes, or for the two groups combined.

5.5 Responses to this part of the consultation were limited in number. Some respondents commented on the benefits of individual heat metering and noted that it was already often installed in new heat scheme developments. However,

[7] Heat Call for Evidence, www.berr.gov.uk/files/file43609.pdf
[8] Energy Billing and Metering: Changing Customer Behaviour – an Energy Review Consultation, www.berr.gov.uk/consultations/page35260.html
[9] BRE Client Report 236515: Desk Study on Heat Metering, www.defra.gov.uk/environment/climatechange/uk/energy/energyservices/index.htm

there were also some comments on the high cost of accurate heat metering, and on the uncertainties about costs. One energy supplier said it is not financially reasonable or proportionate in relation to energy savings to install meters for final customers, but the same supplier also observed that this is not preventing some meters being installed to satisfy the needs of developers and energy service providers.

Conclusions

5.6 Whilst the Government wishes to encourage the installation of metering for individual customers in new heat scheme developments, based on the work conducted by BRE it recognises that at present there would be a disproportionate cost in relation to energy savings. The Government also notes the lack of arguments in favour of legislation by respondents to the consultation. For these reasons the Government will not make individual heat metering a requirement at the current time.

5.7 As regards billing, the Government has concluded that, given the very limited amount of individual metering in heat schemes, and the fact that the Government is not requiring installation of such meters at this point, it would be inappropriate to require billing based on actual energy consumption.

5.8 The Government's conclusions have been reached against the background of wider current Government activity on heat and it will keep this issue under review in light of decisions following the call for evidence.

Energy Efficiency

5.9 The Government noted in the consultation that consumers in district heat schemes are also supplied separately with electricity. This Government Response deals with the provision of energy efficiency information by electricity suppliers in Section 2. It notes the existing activities by suppliers and other organisations in this area and concludes that there is no need for further intervention. Given that district heat consumers will be recipients of such information from other energy suppliers, the Government has concluded that it would be unnecessary and inappropriate to make additional requirements for heat suppliers.

Section 6: Unlicensed Gas and Electricity Supply

6.1 The Government sought views on existing billing and metering arrangements in the unlicensed sector, and on whether the proposals for the licensed sector described elsewhere in this document should also apply to the unlicensed sector.

6.2 Only three organisations responded in any detail to the Government's request for views about metering and billing arrangements in unlicensed supply, and about the possible application to this sector of the Government's proposals on metering and billing. All of these organisations opposed Government intervention in this sector. They argued that new requirements would act as a deterrent to new entrants in the distributed energy[10] sector, and would thus run counter to the Government's wider policy objectives in that area.

6.3 Distributed energy has the potential to contribute to the energy mix and assist with meeting greenhouse gas emission targets in a variety of ways. It is the subject of a current joint BERR and Ofgem consultation[11], which states that the Government and Ofgem are committed to ensuring that regulatory arrangements do not raise any unnecessary barriers to the wider take up of distributed energy. The Government also wishes to encourage innovation so that new entrants and smaller suppliers, as well as existing large suppliers, can experiment with new technologies and commercial arrangements in order to discover cost-effective ways of reducing emissions.

6.4 Unlicensed supply is carried out under the class exemptions regime [SI/2001/3270], which is a deregulatory measure designed to avoid the imposition of licensing requirements on electricity supply where that supply is minimal or where it does not adversely affect either customers or the safe and secure operation of the total electricity. Unlicensed supply takes a number of forms, in particular, the provision of electricity to a small number of, often temporary dwellings or facilities, such as residents of caravan sites or marinas; local networks principally operated by local authorities; and supply to an industrial site, where the generator, distributor and supplier may well be the same person.

6.5 The Government considers that, given the aims and purpose of the exemptions regime, it would be inappropriate to apply the new requirements set

[10] Distributed energy is defined as renewable electricity generation connected to local distribution networks, as opposed to the transmission network, plus combined heat and power of any scale.
[11] Distributed Energy – Initial Proposals for a More Flexible Market and Licensing Arrangement, - www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=160&refer=Networks/ElecDist/Policy/DistGen

out in the August 2007 Consultation Document on metering to unlicensed suppliers. The Government considers that the financial and administrative cost of imposing certain rules governing metering and billing is not justified at present. However, the Government notes the linkage between unlicensed supply and ongoing work on distributed generation, and proposes to review the approach to metering and billing by unlicensed suppliers in light of the development of policy on distributed energy.

Section 7: Smart Metering for Small Businesses and for Domestic Consumers

Introduction

7.1 The 2007 Energy White Paper set out the Government's vision for the roll-out of smart meters over ten years. This part of the consultation sought detailed views about the policy options for smart metering for small businesses and for domestic customers. Questions were asked about the costs of smart metering, different approaches to the roll-out of meters, asset stranding issues, the communications infrastructure required to support smart meters and also the benefits for consumers and industry.

General

7.2 Overall a majority of respondents were positive about moving forward with the implementation of smart metering to the domestic and small business markets. Some respondents provided economic analyses for a smart meter roll out. It was noted that – on the basis of these analyses – there seemed to be an overall business case to implement smart metering throughout Britain taking into account the wide range of perceived benefits to society, but there was not a supplier-only business case.

7.3 The general view was that without a government mandate it was unlikely that its vision for the roll-out of smart meters within ten years would be fully realised. It was suggested that if roll-out was driven by suppliers' business case then market penetration was only be likely to reach 25-30%. Moving forward on a new and replacement basis would lead to the introduction of smart metering but over a much longer term; respondents suggested this could be up to 20 years on the basis of an annual replacement level of 5%. However within this scenario some respondents also identified the possibility of a "tipping point" at which the given the numbers of smart meters deployed would be accelerated so the actual roll-out time would be less than 20 years. Both approaches maximised problems related to the running of parallel infrastructures required to support smart and non-smart meters, but minimised the costs related to stranding.

Roll out options and market model

7.4 The consultation set out three possible approaches for the introduction of smart metering: to take no action, to require new and replacement meters to be smart or to require all meters to be smart within ten years.

7.5 Respondents indicated that a ten year roll-out would be possible; however views differed about the appropriate model used for roll-out (i.e. the market structure) and what effect this would have on the speed with which the roll-out could proceed.

7.6 Ofgem and some others argued that the existing competitive meter market model was adequate to ensure a ten year roll-out of smart metering.. The benefits of this approach were that given minimal changes to the existing market structure minimised lead time and a roll-out could begin in the shortest possible time, within this model technology choice would remain and players in the market would be expected to innovate and look for efficiency gains. All parties did agree that interoperability agreements will need to be in place.

7.7 An alternative view expressed by most of the major energy suppliers was that the current market structure would not enable the rapid deployment of smart meters and some form of managed and coordinated roll-out would be required. The key benefits identified for such an approach were: interoperability, potential for a dual fuel roll-out, reduced customer disruption and lower logistical costs.

7.8 The major suppliers proposed a 'regional franchise model' whereby roll-out proceeded on a geographical basis under the management of a regional franchisee. However some respondents did question whether all the options had been fully explored and were keen to ensure competition and innovation were retained.

Benefits of smart metering

7.9 Most respondents identified a range of benefits cutting across all stakeholders: the consumer, the suppliers, the industry and wider society in terms of carbon reduction. It was noted that benefits would depend to some extent on the method of roll-out used and on the resolution of questions about interoperability, communications and meter specification and a number of respondents provided quantitative analysis of the benefits.

General issues

- **Smart meter communications infrastructure**

  The overall view was that subject to agreement on interoperability this was an area which should be led by the market to ensure flexibility and innovation. There were likely to be a number of potential communications solutions, which might depend on geography (coverage of different technologies) and on the market structure for roll-out, with different approaches lending themselves to alternative communications infrastructure arrangements.

- **Metering technology and costs**

A number of respondents provided information on technology options and costs. There is clearly a range of costs which are related to the functionality of the meter.

- **Microgeneration**

Most respondents agreed that provision within the smart meter to record "exports" of electricity to the grid would remove one of the current constraints on microgeneration and could therefore facilitate uptake although in itself this function would not provide the details needed to obtain Renewable Obligation Certificates nor necessarily increase uptake.

- **Interoperability**

Respondents highlighted the fact that it would be important to ensure interoperability across meters and communications systems to ensure that data can be accessed and that meters do not become obsolete in the event of a consumer wishing to switch supplier.

- **Asset stranding**

Assets are stranded and costs incurred when a meter is taken out of service before the end of its expected life. Most respondents identified this as an important issue which was directly linked to the roll-out model used. The impact on different players would vary, but under any accelerated programme of meter replacement asset stranding would occur. Respondents suggested that the roll-out model would need to take into account asset stranding and equitable approaches to any losses incurred would have to be found.

- **IT development costs and running parallel systems**

Respondents indicated that under any roll-out scenario it would be necessary for investment to be made in IT systems to support the functionality of smart meters. There would also necessarily be a period where suppliers would have to run parallel systems to support a) customers yet to receive a smart meter and b) those on smart. In addition some industry-wide infrastructure investment would be required. The length of time over which parallel systems run will depend on the roll-out model. Some of the impacts of running two systems outlined were: creates customer confusion and may affect service levels, delivery of new products/tariffs restricted to the smart customers only, higher administrative and management costs.

- **Display devices linked to the smart meter**

There was a range of views expressed about how the data from the smart meter could be displayed. There was general agreement that for some of the benefits from smart to be realised customers had to be able to access real-time information about their consumption and displays linked to the meter were therefore necessary. The strong message from some respondents was that that smart meters must come with a dedicated free-standing display

device, however others suggested a more flexible approach to accessing this information for example using a personal computer or TV.

- **Impact on meter installers**

Respondents noted that there would be significant effects on organisations involved in meter installation and reading although these might vary under different roll-out options. There were issues around, job losses, retraining and potential of existing organisations to enter the new markets created by smart metering – which would still require some degree of on-site service and maintenance, but also represented an opportunity for new and innovative approaches around the provision of energy advice services. An open market was considered essential by those organisations involved in this sector to enabling them to react to opportunities.

- **Social and personal information issues**

Most respondents recognised the potential underlying social and personal information issues that could arise from the introduction of smart meters. Most considered that existing safeguards, for instance under the gas and electricity supply licences and data-protection laws, should be adequate under a new technology regime, however this was subject to adequate enforcement and review where appropriate. Arrangements for data management, ownership and security would need to be robust and would require detailed consideration.

Conclusions

7.10 The Government has drawn on the consultation responses and the work of independent consultants to develop impact assessments to assess the costs and benefits associated with a smart meter roll out to domestic consumers and to small business consumers. The Government also notes the broad support for a universal roll out of smart meters and that some economic analyses received from stakeholders have concluded that there is a positive Great Britain case for smart metering.

7.11 The Government's impact assessment work suggests a reasonably positive case for rolling out smart to small businesses, but a more questionable economic case for a domestic roll out. A range of costs and benefits have been quantitatively assessed and in addition a number of broader intangible benefits identified, which it has not been possible to quantify. Given the complexity of the issues and the number of variables involved, the Government wishes to discuss further with stakeholders on the impact assessments for small businesses and for domestic consumers before taking final decisions on the way forward. We have therefore published in parallel to this consultation response a consultation impact assessment on a roll out of smart meters to domestic consumers and to small business consumers and invite comments from stakeholders on these. The Government will take a final decision on a domestic / small business roll out

in the light of this further work and the initial results from the Energy Demand Research Project now under way (see Next Steps).

7.12 As stated in Section 4 there is already a clear business case for moving ahead with smart metering for medium-larger businesses. In addition, as set out above, our initial impact assessment work suggests a case for a roll out to smaller businesses, and that further work is needed to examine the case for a domestic roll out. Given this position, the Government believes the right way forward is to take powers now in the Energy Bill which will allow a roll out of smart meters to medium-larger business as soon as possible, but which will also provide the necessary powers to implement a roll out of smart meters to small businesses and to domestic consumers in the future. Exercising these powers in relation to small business and the domestic sector will be dependent on the outcome of further analysis and impact assessment work. We have therefore laid (22 April 2008) an amendment to the Energy Bill[12] to allow the Government to amend relevant gas and electricity licence conditions to roll out, or facilitate the roll out, of smart meters in the future.

7.13 In taking forward the impact assessment work and examining the detailed responses to the Metering and Billing consultation the Government has already reached some preliminary conclusions relating to some of the issues which would arise in the event of a roll out of smart meters to domestic consumers and to small businesses. These preliminary conclusions are set out below.

Functionality

7.14 The Government notes that the major suppliers favour a smart meter specification which would provide two-way communications, microgeneration measurement, remote credit and pre-pay transfer and disconnection. Some smaller suppliers and other actors in the market have argued for a simpler specification which allows greater flexibility for suppliers to differentiate their offerings, is less expensive, and minimises costs from stranded assets. The Government recognises the benefits that sophisticated smart meters can provide, but feels that further impact assessment work and consultation is needed to understand the attribution of benefits across technologies before making a final decision, which should ensure that benefits can be maximised at least cost.

Interoperability

7.15 The Government recognises that interoperability, particularly of data protocols, is an essential pre-requisite for any smart meter roll out. Interoperability will ensure that all suppliers can retrieve data from all meters so that meters are not stranded on change of supplier. It would be important that these standards minimize any restrictions on suppliers to innovate, whilst also ensuring interoperability. In the event of a roll out the Government would request that Ofgem reconvene its interoperability group to take this work forward.

[12] http://services.parliament.uk/bills/2007-08/energy.html

Stranding

7.16 The Government accepts that under any accelerated roll out of smart metering there will be a level of asset stranding. Government also recognises that the stranding liability would not be evenly spread across the industry and taking no action to address this issue would have an impact on the relative competitive positions of supply and metering companies. In the event of a roll out the Government would ask Ofgem to work with the industry to find an equitable solution to this issue to maintain the competitive balance of the market, but which minimises costs to consumers where possible.

Communications

7.17 Should a small business and domestic roll out of smart metering be undertaken then the Government shares the majority view that Government is not best placed to decide the most appropriate mix of communications to support smart metering. In the event of a roll out this decision should remain a commercial one.

Data

7.18 In the event of a roll out of smart metering to small business and domestic consumers the protection of the increased amounts of data which result from smart metering will be crucial. Customers would need to be assured that their data is properly protected. It will also be important to ensure that consumers have access to their metering data so as to enable them to have a choice of energy services providers and encourage competition in this market.

Displays

7.19 It is important that policies on standalone real-time display devices (covered in section 3) and those on smart meters are integrated and work together as a package. The Government's view is that the provision of a display together with a smart meter is necessary if the full green benefits are to be generated from a roll out of smart metering and, in the event of a roll out, suppliers would be required to provide one display per household. However should a smart meter roll out proceed suppliers should also be free to offer information through other formats, for example through the Internet, TV etc. in addition.

Consumer Protection and Engagement

7.20 Smart metering may introduce new possibilities for suppliers to transfer consumers between credit and pre-pay and disconnect consumers remotely under certain well-defined circumstances. Ofgem is confident that the appropriate protections are already in place; however they and the Government recognise that consumers will want to be reassured on this point. In the event of a smart

meter roll out it is therefore proposed that Ofgem should review the current procedures to assess whether these need to be adapted to accommodate new smart metering services.

Smart Metering and Renovations

7.21 The Energy Services Directive requires that individual meters are provided when a building undergoes major renovation (as defined in the Directive 2002/91/EC). Any universal roll-out of smart meters to all consumers will ensure that such meters are installed in all such cases. However, in the event of a smart meter roll out the Government will also include in guidance on Building Regulations a requirement for those undertaking, or responsible for, renovations to contact the gas and electricity suppliers so that suitable meters can be installed.

Next steps

7.22 Given the need to undertake further impact assessment work, and to take into account the initial results from the Energy Demand Research Project (EDRP), the Government intends to confirm its decisions on the way forward for smart metering for small businesses and for domestic consumers as soon as possible after the second report from the EDRP project in November 2008.

7.23 To this end, work will continue in the next few months to further refine the impact assessment related to both smart for domestic and for small business. In particular we intend to focus on the following areas which have been identified in consultation with stakeholders:

- treatment of risk within the economic analysis;
- assessment of market structures;
- attribution of benefits to technology functionality;
- communications options and structures;
- analysis of the wider potential benefits of smart metering; and
- further impact assessment work, and consultation as appropriate, on smart metering for small businesses.

7.24 A consultation impact assessment was published on 23 April 2008[13]. Further discussions with stakeholders on the consultation impact assessment and in the areas identified above will take place over the next few months to further refine the impact assessment and define the policy options moving forward.

7.25 The next stage of the process will focus particularly on the risks and benefits of roll out models for smart metering and will run until the autumn.

[13] http://www.berr.gov.uk/files/file45794.pdf

7.26 The overall aim of this process is to have completed all the necessary preparatory work to enable decisions to be taken in line with the timetable set out at 7.22, including, if appropriate, on the central elements of a Government mandate. A meeting with stakeholders will be held on 1 May 2008 to discuss the process going forward in more detail.

Annex A

Energy Services Directive

A key factor in developing and delivering the Government's metering and billing proposals is the need to implement the requirements of Article 13 of the Energy End-Use Efficiency and Energy Services Directive. In taking final decisions on billing and metering, the Government will have in mind the need to comply with the requirements of the Directive.

The key requirements of the Directive concerning metering are that:

- in so far as is "technically possible, financially reasonable and proportionate in relation to the potential energy savings", final customers for electricity, natural gas, district heating/cooling and domestic hot water are provided with competitively priced, individual meters that accurately reflect the customer's actual energy consumption and provide information on actual time of use; and

- when an existing meter is replaced, such competitively priced individual meters should always be provided unless it is "technically impossible" to do so or it is "not cost-effective in relation to the estimated potential savings in the long-term". It also requires that, when a connection is made to a new building, or a building undergoes major renovations, such competitively priced individual meters should always be provided.

The key requirements of the Directive concerning billing are that:

- where appropriate, energy billing performed by energy distributors, distribution system operators and retail energy sales companies is based on actual consumption and is presented in clear and understandable terms. It also requires that information shall be provided with the bill to provide customers with a comprehensive account of current energy costs. It further states that billing on the basis of actual consumption shall be performed frequently enough to enable customers to regulate their own energy consumption; and

- where appropriate, energy distributors, distribution system operators and retail energy sales companies make available on bills, contracts, transactions and/or receipts, in clear and understandable terms:

    - information about current actual energy prices and consumption;

- comparative information showing the customer's consumption for the same period in the previous year, preferably in graphical form;
- wherever possible and useful, comparative information for an average normalised or benchmarked user in the same category; and
- contact information for consumers' organisations etc, from which information may be obtained about energy efficiency improvement measures, comparative end-user profiles and/or objective technical specifications for energy using equipment.

Annex B

List of Respondents

- Actaris UK Ltd: consultation response (707KB)
- Ampy Metering Ltd / Landis+Gyr Ltd: consultation response (6187KB)
- Association for the Conservation of Energy: consultation response (11KB)
- Association of Meter Operators (AMO): consultation response (2805KB)
- B&Q: consultation response (31KB)
- BEAMA: consultation response (36KB)
- Bglobal plc: consultation response (2805KB)
- BizzEnergy Ltd: consultation response (58KB)
- Boucher, S: consultation response (9KB)
- Boulton, M: consultation response (8KB)
- Box Ten Ltd: consultation response (5139KB)
- British Energy: consultation response (887KB)
- British Gas: consultation response (179KB)
- BSI: consultation response (147KB)
- Capital Meters Ltd: consultation response (245KB)
- CE Electric UK: consultation response (763KB)
- Citizens Advice Bureau: consultation response (44KB)
- Consumer Council: consultation response (18KB)
- Croydon Calorific: consultation response (955KB)
- Current Cost Ltd: consultation response (68KB)
- eaga plc: consultation response (35KB)
- Echlin, B: consultation response (9KB)
- EDF Energy: consultation response (8573KB)
- Electrisave: consultation response (31KB)
- ELEXON Limited: consultation response (985KB)
- Energy Action Scotland: consultation response (3788KB)
- Energy Decision Support: consultation response (19KB)
- Energy Networks Association (ENA): consultation response (1411KB)
- Energy Retail Association (ERA): consultation response (883KB)
- Energy Saving Trust: consultation response (1439KB)
- energywatch: consultation response (7088KB)
- Environmental Change Institute (University of Oxford): consultation response (117KB)

[redacted] E.ON UK: consultation response (8168KB)
[redacted] Energy Services & Technology Association (ESTA) & Energy Institute (EI): consultation response (2336KB)
[redacted] Federation of Small Businesses: consultation response (42KB)
[redacted] First Utility Ltd: consultation response (671KB)
[redacted] Forum of Private Business (FPB): consultation response (1611KB)
[redacted] Fuel Poverty Advisory Group: consultation response (23KB)
[redacted] Gardner, K: consultation response (9KB)
[redacted] Gaz de France ESS: consultation response (73KB)
[redacted] Good Energy: consultation response (5060KB)
[redacted] Good Homes Alliance (GHA) & AECB (The Sustainable Building Association): consultation response (43KB)
[redacted] Gray, J: consultation response (8KB)
[redacted] Green Alliance: consultation response (1252KB)
[redacted] Green Energy Options (GEO): consultation response (1406KB)
[redacted] Haven Power: consultation response (19KB)
[redacted] Headey, D L: consultation response (8KB)
[redacted] Hyde Housing: consultation response (32KB)
[redacted] IBM UK Ltd: consultation response (6953KB)
[redacted] Imperial Centre for Energy Policy and Technology (ICEPT): consultation response (58KB)
[redacted] IMServ Europe Ltd: consultation response (3714KB)
[redacted] Jarman, R: consultation response (9KB)
[redacted] Kashti, Dr. A: consultation response (1828KB)
[redacted] Lickorish Consulting: consultation response (194KB)
[redacted] Look Smart alliance: consultation response (342KB)
[redacted] Luton Borough Council: consultation response (116KB

[redacted] Meter Fit (North West/East) Limited: consultation response (71KB)
[redacted] More Associates: consultation response (560KB)
[redacted] British Holiday & Home Parks Association (BH&HPA) & National Caravan Council Limited (NCC): consultation response (1301KB)
[redacted] National Consumer Council (NCC): consultation response (70KB)
[redacted] National Energy Action (NEA): consultation response (27KB)
[redacted] National Grid: consultation response (7684KB)

[redacted] National Right to Fuel Campaign: consultation response (67KB)
[redacted] Northern Design (Electronics) Ltd: consultation response (3023KB)
[redacted] Northern Gas Networks: consultation response (603KB)
[redacted] Ofgem: consultation response (7157KB)
[redacted] Oil Firing Technical Association (OFTEC): consultation response (9KB)
[redacted] Onzo Ltd: consultation response (3621KB)
[redacted] ORSIS UK (Ltd): consultation response (1257KB)
[redacted] OWL: consultation response (127KB)
[redacted] Pilot Systems: consultation response (2179KB)
[redacted] PRI Ltd: consultation response (4000KB)
[redacted] Public Utilities Access Forum (PUAF): consultation response (28KB)
[redacted] RWE Npower: consultation response (9507KB)
[redacted] SBGI: consultation response (976KB)
[redacted] ScottishPower: consultation response (8151KB)
[redacted] Scottish & Southern Energy plc (SSE): consultation response (9775KB)
[redacted] Sensus Metering Systems: consultation response
[redacted] Shaw, R: consultation response (8KB)
[redacted] Siemens Energy Services (SES): consultation response (7555KB)
[redacted] Somerset County Council: consultation response (50KB)
[redacted] TAHI (The Application Home Initiative): consultation response (197KB)
[redacted] Taylor, David (MP): consultation response (14KB)
[redacted] Total Gas & Power Ltd (TGP): consultation response (3261KB)
[redacted] TruRead Ltd: consultation response (950KB)
[redacted] UK Home Energy Conservation Association (UK HECA): consultation response (20KB)
[redacted] UKME Ltd: consultation response (91KB)
[redacted] United Utilities Metering: consultation response (47KB)
[redacted] Utilihub datacoms Ltd: consultation response (38KB)
[redacted] Wales & West Utilities: consultation response (702KB)
[redacted] Xoserve Ltd: consultation response (28KB)