

Response to DECC's Call for evidence on data access and use

13th October 2011

Overview

This paper provides the Energy Retail Association's (the ERA's) response to the questions in the *"DECC – Smart Metering Implementation Programme - A call for evidence on data access and privacy"* document published on 18 August 2011. The response is due for submission to DECC by 13 October.

Our response supplements the previous paper titled "Suppliers uses of data from smart meters" submitted to DECC by the ERA on 20th May 2011. As stated in that paper and this response, the policy decisions regarding data access and privacy will be a key factor in both Government and energy suppliers being able to deliver the benefits of smart meters as identified in the Government's Impact Assessment. As such, the ERA urges Government to make use of all of the information available to them, and to consider all impacts before making any policy decisions in this area.

The ERA and its members fully appreciate that the GB energy market is complex, and the roles, responsibilities and activities that each party operating in the market undertakes is not always obvious or clear to those outside of the industry. Many of our members have already spent time with representatives from DECC and Government to explain many of the interactions that take place within the market, and to explain how customer service processes and procedures work on a day-to-day basis and how the use data is essential in these activities. We welcome any further opportunities to continue with this engagement over the coming months and encourage you to contact me if you would like to arrange any further sessions on specific topics, or if you would like to visit any of our members to see how data is used in the live environment.

In addition to this response, the ERA is also submitting the latest draft version of its Smart Metering Privacy Charter. The Charter has been developed by the ERA and its members, with the aim of providing a set of clear commitments for ensuring transparency for consumers in terms of the collection, and use of, and the choices available in relation to the information from smart meters.

We fully recognise that the Charter is just a 'snap-shot' of supplier commitments at this time, and that it will need to evolve as Government policy in relation to data privacy evolves. We will also be taking on board comments and suggestions from consumer representatives as further stakeholder engagement takes place over time. We are keen however to stress that the Privacy Charter is purely focused on smart metering, and is not intended as a 'cover all' for more generic issues associated with privacy, nor is it a replacement for a Privacy Notice as required under the Data Protection Act 1998. Each of our members are currently working towards delivering the commitments within the Privacy Charter, and we will keep DECC informed on their progress accordingly.

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Question 1: Please submit any further evidence, such as surveys or consumer research, regarding privacy issues and smart metering. In particular is there evidence available about the extent of any potential consumer concerns about the availability of daily versus half-hourly data?

Response: The Energy Retail Association will be conducting independent consumer research aimed at gaining more insight into general consumer attitudes to smart meters during October, with initial analysis expected towards the end of November, and a full report in December. Whilst this research is not focused on privacy issues, it will ask for consumers' views on their attitudes and expectations on energy suppliers collecting information from smart meters. We will be happy to share the results with DECC and Government once the final report is published.

Of the ERA's members, one supplier has conducted its own research into consumer attitudes to the collection of energy consumption information on a Half-Hourly basis from smart meters. This research concludes that only 6% of consumers with smart meters would object to the collection of information at the Half-Hourly level¹.

The ERA does recognise that there is already evidence from a number of sources both nationally, and internationally in relation to general consumer views around data privacy and smart meters. However, with the exception of one of the ERA's members own research, there is very little, if any evidence in relation to the potential concerns specifically about the availability of daily data versus half-hourly data.

Consumer Focus have carried out some research in relation to customer attitudes to smart meters as confirmed in the meeting notes from Ofgem's Smart Metering Consumer Advisory Group meeting in January 2011. They reported *"Consumer Focus has recently undertaken a survey exploring consumer attitudes to smart metering. The largest proportion of respondents expressed an interest in smart metering but a sizeable remainder were either apathetic or did not see the need for rollout. Some respondents expressed concerns about the costs of smart metering. Concerns around data privacy did not figure prominently in this survey."*

Results from Ofgem's most recent Consumer First Panel sessions also identified some general concerns relating to privacy and smart meters. The more common concerns quoted in the report from the sessions state *"Panellists were wary of their data being shared with third parties and wanted to know who these third parties were and how their data might be used. Some were also concerned about the security of their data and whether it could be 'hacked' into."*

At the point of installation, Panellists would want clear and easy to understand information on how to use their Smart Meter and in-home display (IHD). Other important information requirements centred on maintenance and safety of the meter and IHD, data privacy and implications for moving house or switching suppliers.

¹ Based on a survey of smart meter customers of approximately 1800 customers in December 2010:

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Other issues referred to the security of data, and the possibility that their Smart Meters could be 'hacked', although the specifics of this apprehension were not abundantly clear. Some participants countered that meter readings were not sensitive data in the same way that, for example, bank details are..

Based on the evidence available to date, it appears that the more general concerns from consumers is not focused on data or information suppliers could get from smart meters, but more focused on concerns around the security of data, or that their data could be shared with 3rd parties leading to an increase in marketing activity.

Due to the sensible early decisions of Government to ensure that Privacy & Security Issues are kept at the heart of the GB SMIP, the first of these concerns is already being dealt with by the programme and its participants. In its management of Phase 1 of the SMIP, Ofgem carried out comprehensive Security & Privacy Risk Assessments to highlight the most relevant risks to the programme. The outputs from this process have been considered throughout Phase 1 and are embedded into the objectives and deliverables for Phase 2 and beyond.

The second of these concerns is already dealt with under Business As Usual activity for energy suppliers. Suppliers already seek to obtain the necessary consents from consumers to allow them to market products and services to consumers, and this is unrelated and will be unaffected by the roll-out of smart meters. The same principle also applies in relation to energy suppliers being able to pass consumers' details or information onto 3rd Party organisations for marketing purposes.

There is a more general issue highlighted from the previous/current research relating to consumer attitudes to data privacy, and that is that consumers do not appear to know what their rights are in terms of data protection. This is not an energy industry specific issue, but an issue that is relevant right across the board for all industries. The ERA's Smart Metering Privacy Charter, which is currently under development, sets out firm commitments that its members will inform consumers of their rights and choices regarding the collection of information from smart meters. We believe the Charter will help reassure and educate consumers in relation to data privacy issues associated with smart meters.

Question 2 – To what extent would different rules for access to data between suppliers and third parties be expected to impact on the development of an energy services market (in terms of product and tariff innovation and/or entry to the market by third parties)? What are the particular data uses to which these concerns apply?

Response: The ERA recognises that there will be significant opportunities for the energy services market to develop as a result of the increased granularity of information from smart meters. It is essential that the same rules apply to both existing market participants and new entrants, so that all are able to operate on a level-playing field when it comes to the access to the information delivered from smart meters.

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With this in mind, the ERA has supported the concept that all market participants requiring access to information from smart meters (via interaction with the DCC) should be signatories to the new Smart Energy Code (the SEC). The SEC should include relevant and appropriate obligations on all parties in relation to the collection of information from the end-to-end smart metering infrastructure, putting in place robust governance processes with appropriate sanctions for non-compliance. With appropriate sanctions in place, there should be a sufficient incentive on all parties to comply with the obligations associated with the collection of smart metering information from the DCC.

In terms of particular data uses to which these concerns apply, the most relevant is the use of granular energy consumption information. With smart meters delivering the functionality to record and store half-hourly meter readings, it will be essential that no particular party has more privileged access to that data compared to others. Existing Consumer Protection Laws already provide the protections necessary here.

The Data Protection Act places specific obligations on all organisations to ensure they have the appropriate consent from consumers to allow the marketing of new or additional products and services. Therefore, even if an energy supplier has access to very granular consumption information needed to supply energy to its consumers, the energy supplier will still need to have gained the appropriate consent from its consumers to send or contact the consumer with details of additional products and services the supplier might offer. This is the same process that any other party wishing to offer energy services/advice will have to undertake, therefore creating a level playing field for all parties.

Question 3 – Are there any data uses, apart from those set out below, where the arrangements for access to data could have an impact on the benefits of the programme. How does this analysis differ for the gas market?

Response: The ERA believes that the majority of uses of data where arrangements for access to data could have an impact on the benefits of the smart metering programme have been captured. The ERA has previously submitted analysis on the expected financial impacts to the Government Impact Assessment as well as other additional benefits that suppliers believe can be achieved resulting from access to energy consumption data from smart meters.

Whilst the figures quoted in that analysis remain largely accurate, the ERA's members have continued work to understand where anonymised, aggregated or sample data could be used for various purposes. These are explained in more detail throughout our response to this Call for Evidence.

The ERA recognises that DECC are minded to focus their attention on the uses of data that are required for suppliers to fulfil their regulated duties i.e. the data that is required by suppliers as obligated under Standard Conditions of their supply licence, or obligations placed on them under the Electricity Act 1989 and the Gas Act 1986 (as amended) or other relevant legislation. DECC have also

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suggested they are minded to define 'regulated duties' narrowly. Whilst the ERA can appreciate some of the reasoning behind this approach, the ERA does not believe that 'regulated duties' sufficiently covers some of the key activities undertaken by energy suppliers, many of which have a significant impact on the overall costs of energy to consumers, and others that will offer significant opportunities to improve the whole end-to-end customer journey within the energy market, reduce supplier operating costs and improve customer service. As such, the ERA urges DECC to reconsider their previous thoughts in this area, and use all of the evidence provided to them before making any further policy decisions in this area.

It is vitally important that Government recognises that the energy market will continue to evolve as more and more smart meters are installed. Participants in the market will look to innovate, improve operational processes and seek to drive efficiencies throughout the whole end-to-end energy supply chain. The Government's own energy policy agenda will also continue to evolve as time moves on. With this in mind, the ERA would urge Government not to make any policy decisions that could restrict the ability for the industry to optimise the potential of these evolving opportunities.

Question 4 – What types of energy services and energy advice could be provided by the market (by suppliers and/or ESCOs/potential new entrants) that require access to specific levels of data? What level of data granularity (frequency/time-lag) are needed to provide such services and what is the potential impact of these services in terms of potential energy savings? Please provide empirical examples and explain the basis of any assumptions and distinguish between gas and electricity.

Response: The market associated with energy services and energy advice will grow significantly as a result of the information available from smart meters. We fully expect service providers to develop new and innovative ways of assisting consumers with their day-to-day energy consumption decisions through a variety of media, and developing products and services aimed at either reducing consumption, or shifting energy use to different times of the day in conjunction with suppliers' specific Time-of-Use tariffs. Whilst we cannot speak on behalf of service providers likely to be offering products and services in this area, we do believe that they will require access to energy consumption information provided either by the consumer, or through direct access via the DCC.

Energy suppliers already have some very specific obligations in terms of the provision of energy efficiency advice to their customers, and whilst DECC have provided a view previously, that in their opinion, such an obligation does extend to very tailored personal advice, the ERA believes that this is an area that requires further thought. There is already sufficient evidence to suggest that in providing very generic, non-personal advice, it is unlikely Government (discharged by obligations on energy suppliers) will meet the challenging energy consumption reduction targets it has set itself, or that the carbon reduction and energy efficiency elements of the benefits case for smart meters will be achieved. The ERA believes that by restricting the ability to use all data and information available, there will be a missed opportunity to deliver the challenging GB energy consumption reduction targets.

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The ERA does not believe that the use of granular consumption information from smart meters to provide tailored energy efficiency advice has any negative impact on consumer choice. For such an important environmental issue, that affects all citizens throughout the world, the ERA's members believe it is not appropriate to restrict energy suppliers from providing tailored energy efficiency advice. Suppliers would only be using consumer's individual consumption information to provide advice, and consumers have the ultimate power to either take action, or ignore any advice given.

There is a significant amount of evidence, both academic and practical, that supports the ERA's view that simply installing a smart meter along with an IHD will not deliver significant energy efficiency savings. This evidence also supports our view that simply providing generic, non-personalised 'advice' does not change behaviour significantly either:-

- Ofgem's Energy Demand Research Project (EDRP)
 - *"The combination of smart meters and RTDs consistently resulted in energy savings of around 3% but with some higher and lower savings, depending on fuel, customer group and period."*
 - *"The EDRP findings for generic advice and historic feedback are consistent with the literature insofar as an effect of these interventions was not always seen and, when it was seen, the reduction in consumption was up to 5%."*
- DEFRA Report – The Effectiveness of Feedback on Energy Consumption (2006)
 - *0-10% savings can be achieved from indirect feedback (after the event); and*
 - *5-15% from more direct feedback (i.e. near real-time).*
- National Renewable Energy Research Laboratory – Advanced Metering Initiatives and Residential Feedback Programs research report– June 2010
 - *3.8%-8.4% savings can be achieved with indirect feedback on energy use; and*
 - *9.2-12% savings can be achieved with direct feedback.*
- British Gas' Home Energy Report - February 2011²
 - *British Gas homes have seen a 22 per cent decline in gas consumption on average, as more homes adopt energy efficiency measures, but within these numbers, there are still too many homes which have taken no action at all.*

² http://www.centrica.com/files/pdf/BG_Home_Energy_Report_110202.pdf

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- *Those British Gas customers who did adopt simple energy efficiency measures, such as insulation, saved an average of £322 each year and saw a 44 per cent fall in their gas use between 2006 and 2010. These are real people saving real money right now. The falls in gas use follow three decades of rises and show the impact energy efficiency is having on British homes.*

Question 5 – Should theft management be considered a regulated duty for which suppliers should have access to a certain level of smart metering data? What level of data would be required and how would this be used to manage theft? Please provide practical examples.

Response: Theft Management already is a regulated duty for energy suppliers. The identification and prevention of theft is not only a financial issue, but also one of safety. If consumers are fully aware that energy suppliers will receive regular consumption information from their smart meter, and that their smart meter can also send tamper alerts, then these two factors alone could act as a deterrent on their own. That said, there will always be the temptation to steal energy by some consumers, regardless of the technology installed.

We note that Ofgem's recent 'Tackling Gas Theft' consultation assumes that '*the more detailed consumption information from smart meters should enable suppliers to better spot instances where unexpected levels of consumption suggest there is a risk that a meter is not correctly recording consumption, including where this may be caused by theft.*' This indicates that Ofgem also expect energy suppliers to be able to utilise consumption information from smart meters to manage this regulated duty.

The ERA is not able to provide examples of how daily consumption information will be used, along with other information such as tamper alerts. However, our members will provide this information on an individual basis where possible.

Question 6 – Does data need to be collected from all customers all of the time for theft management, or could there be a trigger for accessing more detailed data (for example, where theft is suspected)?

Response: In order to deliver the optimal benefits associated with theft, the ERA's members agree that data does need to be available from all customers, all of the time. The ERA does not expect daily consumption information to be the sole evidence for theft identification. Instead, consumption information will be just one source of information that suppliers will use to identify theft.

Whilst the smart meter technical specification currently includes 'alerts' for to highlight meter tampering, these will only be triggered if there is suspected tampering of the smart metering equipment itself. In some cases where theft of energy has been discovered, the illegal abstraction of energy occurs away from the meter, such as altering gas inlet pipes, or incoming electricity cables. In such circumstances, a meter tamper alert would not be triggered, and the energy supplier would be completely unaware that theft of energy is occurring.

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On this basis alone, the ERA's members agree that the required information must be made available to them to discharge their regulated duty for the identification and prevention of theft. The ERA's members will all respond to Ofgem's 'Tackling Gas Theft' consultation which includes 3 proposed structures for a national revenue protection scheme, which does include proposals for the collection and sharing of data to tackle energy theft. As such, the outcome of this consultation may also place additional obligations on suppliers that also support the view that there should be no restrictions on use of available information.

Question 7 – What level of take-up of TOU tariffs could be expected under different scenarios for access to data? What information is needed to design TOU tariffs? In particular, would sample or anonymised data be sufficient?

Response: The take-up of TOU tariffs will be largely dependent on their suitability for individual consumers, and will be reliant on TOU tariff's being relevant and beneficial to a wide and varied customer base across GB. The ERA also believes that as suppliers seek to innovate and introduce new tariffs, these could extend into the gas market too, for example, through seasonal gas tariffs.

The concept of Time-of-Use tariffs is not new in the electricity market, with significant volumes of consumers already choosing restricted-hour tariffs, tariffs designed to accommodate electric storage heaters, or tariffs designed to encourage off-peak electricity use such as Economy 7. It is likely that these tariffs will survive in the smart world, or alternatively, suppliers will develop new or replacement Time-of-Use tariff's as the market evolves.

In the electricity market, current electricity settlement profiles are far too vague to identify what could be deemed as a typical domestic usage profile. For example, a customer in a one-bedroomed flat could be on exactly the same profile as a customer living in a 5 bedroomed detached house - both properties will use completely different amounts of electricity, and the usage throughout any 24 hour period will be completely different. The same can also be said for two identical properties – no two properties will use electricity in the same way, therefore in reality, it is difficult to categorise a typical or average customer when it comes to energy consumption.

In order to develop meaningful and financially attractive/beneficial TOU tariffs, suppliers need to understand electricity consumption patterns for consumers within their portfolio, rather than using the current settlement profile for groups of consumers in order to ensure those tariffs are suitable for the wide and varied customer base. Suppliers may also need to understand other characteristics of consumers alongside consumption information in order to develop new products and services, but believe that this can still be achieved with a level of anonymisation of data.

Aggregating data may achieve the required results, but the ERA's members believe there will need to be a significant amount of in-depth analysis required with raw, individual consumption data before any amount of aggregation could take place to deliver the confidence that new tariffs are being developed to meet the needs of consumers.

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As discussed elsewhere in this response, if aggregation or anonymisation is required, then consideration will be needed as to which party carries out that activity. It may be wholly appropriate for suppliers to carry out this role themselves in order to ensure the resulting data meets the requirements of suppliers and consumers alike.

Question 8 – Do you agree that Half-Hourly data is not currently required for suppliers to meet their obligations in relation to settlement? Over what timescale are any changes to settlement likely to take place and what might the implications be in terms of data requirements?

Response: At present, Half-Hourly data is required for settlement purposes for those sites where a supplier has elected them into the Half-Hourly settlement arrangements. Technically, in terms of the Balancing and Settlement Code arrangements, there is nothing to preclude a supplier from electing to settle domestic premises on a Half-Hourly basis. However, the ERA does recognise there are a number of barriers and valid commercial reasons why domestic sites are not currently elected into the Half-Hourly settlement arrangements.

Many of the ERA's members do not believe that Half-Hourly settlement will either be necessary, or achievable for all domestic premises. It may be the case that settlement decisions will need to be tariff specific, for example, for those sites where a consumer has chosen a Time-of-Use tariff, the site will need to be settled on a Half-Hourly basis, and for those choosing to remain on a flat-rate based tariff remain on Non-Half-Hourly settlement arrangements. Any decisions in this area will need to be made as part of the work ELEXON is undertaking in terms of potential reform of the settlement arrangements. All of the ERA's members are, and will continue to be fully engaged in this process.

In terms of the timescales expected for a reform of the settlement arrangements, this will be largely dependent on the appetite of industry participants. A change of such magnitude will take time, and will need to be informed by a longer-term vision and design for evaluation, which will give the appropriate evidence of the financial and operational benefits for industry to consider. It may be the case that any changes to settlement arrangements for domestic sites could be an evolving process, for example, to review current electricity profiling arrangements as an interim measure once there is a significant volume of smart meters accompanied with new supplier tariffs available to consumers.

It is essential that any data privacy policy framework does not prevent or restrict the use of half-hourly consumption information in the settlement arena. The availability and use of this information will play a key role in informing decisions regarding reform of settlement arrangements, assisting all parties to evaluate the impact on their business operations, and the overall benefits available to consumers.

Question 9 – How far would aggregated or sample data provide suppliers' with what they need in the area of wholesale hedging? Please provide examples of how the data would be used and where possible, quantify any potential costs and benefits.

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Response: The ERA's members all agree that managing the interaction between the retail and wholesale markets is key to shielding consumers from the significant financial risk associated with the volatility of the wholesale energy market. This volatility is often affected by any number of what might appear to be unrelated global or political events outside of a supplier's control, ranging from political/cross-border disputes, through to freak or disastrous weather events across the world. The costs that suppliers incur as a result of such volatility in the electricity market are allocated on a half-hourly basis, therefore making it extremely difficult to manage volatility within day under current market arrangements. We welcome the recognition in the call for evidence of the value of data: "the better the information they have on their customers' usage, the better they will be able to forecast their future energy demands and buy ahead what they need and manage their costs".

One of the key benefits of smart meters is giving consumers the tools to enable them to make informed choices regarding their use of energy, encouraging behavioural change with the ultimate goal of reducing the volume of energy consumed. When also considering the emergence of a new Energy Services market, aimed at providing consumers with additional products and services to also help reduce or change the way they use energy, it is essential that suppliers are able to understand the impact this change has on their hedging position at any point in time. Without the availability of consumption information from smart meters, suppliers will be unaware that such a change has happened, let alone be in a position to react.

Another factor to consider is that as GB begins to rely more on alternative energy generation sources, such as wind-generation, the volatility in the wholesale market could also increase as a result. Suppliers will need the ability to act accordingly in order to protect consumers from the price volatility from any of these factors, and the data available from smart meters will be a valuable resource to assist suppliers with this.

Many of our members share the view that without the ability use of smart metering data, on a within-day basis (i.e. Half-Hourly), there is likely to be an increase in charges associated with Group Correction Factor, and the Balancing Services Use of System charges within the electricity market. These costs are socialised across all consumers, and with bodies such as ELEXON already quoting costs in excess of £200m per year, just for the profiling error component of Group Correction Factor, it is essential that suppliers have all of information available to them to manage these costs in a smart world.

In terms of whether or not sample or aggregated data would be required for hedging purposes, the issues highlighted above indicate that in order for sample data to be acceptable, any sample would need to be statistically representative of a suppliers portfolio, and would need to be of a significant volume so that suppliers are confident the sample represents the many characteristics within their whole portfolio. It also indicates that due to the anticipated behavioural change associated with the introduction of smart meters, aggregating large volumes of data from a wide and varied customer base may not deliver the transparency required for suppliers to understand the changing nature of

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consumption. That said, data need not be 'personal data', and more work is required to understand how aggregating data for different types or groups of consumers could provide the optimal benefits.

The ERA urges Government not to prevent or restrict the use of granular consumption information for supplier activities associated with management of the interaction between the retail and wholesale markets. The consequences of suppliers' not being in a position to manage the financial risks in this area are potentially severe, and if an inappropriate policy decision in this area is made, the ability to shield consumers from the volatility in the wholesale market will be greatly affected, and could lead to an increase in additional, unnecessary costs being incurred which will inevitably affect the costs of energy to consumers. The ERA's members are willing to work with Government to further understand how to 'de-personalise' data in order to ensure that information from smart meters can be used to its maximum potential in this area.

Question 10 – What level of data would be required and how would this could be used to manage debt? Please provide practical examples.

Response: There are two areas where smart metering data can provide real benefits relating to debt management.

The first of these is debt prevention. With more a more accurate picture of an individual's energy consumption as a result of more frequent consumption information available from smart meters, energy suppliers will have the ability to better identify instances where payments from consumers are not sufficient for their energy consumption, assisting suppliers in setting accurate payment arrangements against that information. This will be a significant improvement to current arrangements, especially where meter readings have been estimated, which is recognised as one of the biggest causes of energy related debt.

The second of these areas is debt management. For those consumers who find themselves in arrears with payment of their energy bills, they will enter into a payment arrangement with their energy supplier that covers the payment of their current energy consumption, along with a contribution towards any arrears they may owe. It is vitally important to this group of consumers that the payment arrangement agreed is sufficient to cover their current energy costs and help reduce the arrears they may have.

The consumption information available from smart meters will drastically improve energy suppliers' ability to manage debt in these circumstances. Suppliers will have an accurate picture of the consumers' energy consumption, and have the ability to more accurately forecast the payment needed to cover their current energy consumption. This will then ensure that the expected contribution towards the arrears is actually used to reduce their arrears, rather than being used to cover current consumption instead – this is a key issue currently for energy suppliers and one of the key factors preventing consumer debt being reduced in timescales expected.

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Significant resources within the energy supply industry are used to manage both the prevention of energy debt and the reduction of debt. With more granular consumption information from smart meters, the ERA believes there are significant financial benefits to be gained in the area of debt management. Suppliers will be able to reduce the amount of bad debt (debt that cannot physically be collected for one reason or another) that they are forced to write-off, reducing the amount that is socialised across the whole of their customer base, and will also be able to improve the overall customer experience in this area by streamlining their overall credit management processes by using the energy consumption information from smart meters.

Question 11 – How would suppliers envisage using daily data to support debt management and what evidence do they have to support claims of additional savings that could be achieved with access to daily data as opposed to less frequent data?

Response: The ERA's members have different views in relation to the use of daily data to support debt management. Whilst some believe weekly data will be sufficient, others believe that daily data will provide the optimal benefit. Suppliers will respond on an individual basis along with any evidence to support additional savings that they believe can be achieved.

Question 12 – How could smart metering data be used to identify and protect vulnerable consumers? Should such activity be considered a regulated duty and are any licence changes needed to create particular duties on suppliers in this area?

Response: The identification and protection of vulnerable consumers is a regulated duty. The ERA does not believe there is a need to change or introduce new obligations for the identification and protection of vulnerable consumers as Ofgem has recently consulted on the introduction of a new Smart Metering Consumer Protections Package.

On the 23rd September this year, Ofgem has issued a Modification Direction for changes to Standard Licence Conditions (SLCs) 1, 27 and 28 of the Gas and Electricity Supply Licences³. The package contains new guidance for the identification of vulnerable customers, which suppliers are bound to have regard to by a new licence condition.

This guidance acknowledges that it is possible that information and data from smart meters could be used in conjunction with other information and data that suppliers gain and hold to identify and protect vulnerable consumers. However, it is unlikely that data and information from smart meters alone will achieve this.

³<http://www.ofgem.gov.uk/SUSTAINABILITY/SOCACTION/PUBLICATIONS/Documents1/Modification%20Direction.pdf>

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In addition, the ERA has recently made a number of changes to its "Safety Net"⁴, which commits suppliers to never knowingly disconnect a vulnerable customer, that take account of smart metering. These changes have been welcomed by Ofgem.

Given the fact that these new licence conditions and amendments to self-regulatory codes are designed to ensure that robust processes are followed to identify vulnerable customers in a smart world, the ERA sees no need for further work in this area.

Question 13 – Do you consider that use of data by network companies to support them in maintaining an efficient and economic network should be considered a regulated duty?

Response: Yes, the ERA considers that the use of data by network companies to support them in maintaining an efficient and economic network should be considered a regulated duty.

Question 14 – Do you agree with the requirement for such data to be anonymised or aggregated wherever possible, and how should this be monitored?

Response: The ERA does not feel it appropriate to comment here. Network companies are best placed to provide details of their requirements for data from smart meters and whether anonymised or aggregated data will meet those requirements.

Question 15 – Would suppliers be expected to advise consumers of network company usage of data, given that network companies do not have a direct relationship with customers?

Response: Suppliers already advise consumers of network usage of data within the terms and conditions of supply between consumers and suppliers. However, the ERA's members do recognise that it is likely that they will need to make changes to those terms and conditions if network companies require access to personal data from smart meters, and will make such changes when appropriate.

The ERA is likely to play a key liaison role between suppliers, the Electricity Networks Association and network operators themselves in order to take this work forward.

Question 16 – Are there any alternatives to a basic opt-in or opt-out approach to consumer choice such as some form of promoted choice? What are the practical and consumer protection considerations in relation to different options (for example, when and how)? From a consumer perspective, what alternative approaches and vehicles (for example, letter, email, phone) to seek customer consent are there?

Response: The ERA does recognise that consumer choice can be offered and delivered in any number of ways, and that there are alternatives to a basic opt-in, or opt-out approach. However, the most important element in any choice mechanism, or in how that choice is offered, is that it is done in a

⁴ <http://www.energy-retail.org.uk/documents/ERASafetyNet16August2011.pdf>

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way that does not confuse consumers, and that they are able to make an informed decision on the choices available to them. Any form of promoted choice (such as offering unrelated incentives in order to encourage an opt-in) carries a significant risk of clouding the importance of the privacy issues at stake.

One of the key principles of the ERA's Smart Metering Privacy Charter is to ensure that consumers are kept fully aware of suppliers' uses of information from smart meters, and the choices they have in terms of the information that is collected, and what that information is used for. The Charter also makes clear that suppliers will tell consumers how, and who they need to contact in order to exercise the choices available. The ERA's members are fully committed to ensuring there is complete transparency in this area to assist the programme in gaining consumer confidence in smart meters at an early stage.

In terms of choices available to consumers, the ERA's members have a view that choices in the collection and use of information from smart meters must be based on the sensitivity of the information being collected. Namely:-

- Data must be collected – if information is required to enable any party to meet their regulatory obligations⁵
- Consumer choice to opt-out – of Half-Hourly consumption information being collected (unless needed for regulated duties per above), with the default position being up-to daily consumption information collected instead
- Consumer choice to opt-in – of the collection of any consumption information more frequent than Half-Hourly intervals, information collected in real-time, or data collected from individual appliances.

The ERA's members believe that provided the choices above are pre-notified clearly to consumers (before smart meters are installed), and that consumers can exercise the choices available to them at any point in time, there is an appropriately balanced privacy protection regime for smart metering data and information, that delivers the right customer experience, and also allows delivery of the benefits case for smart meters.

If Government does not support this view, it must consider the implications of any alternative approaches and the impact those approaches will have on the ability for Government, and energy suppliers to deliver the benefits case. The ERA's members are united in the view that the roll-out of smart meters must deliver and exceed the expected financial benefits assumed. If this goal is not achieved, then there is a significant risk that consumer confidence in both in Government, and in the

⁵ Some of the ERA's members also have a view that there are other legitimate uses of data that are essential for the efficient supply of energy to consumers and are absolutely necessary for the efficient operation of their businesses as described in our response to Question 3.

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energy industry will be seriously harmed. In the current financial climate, consumers are even more expectant of Government based projects to deliver value for money, and will therefore expect a programme of this nature to live up to the promises being made, delivering the savings and benefits to consumers.

Question 17 – What evidence is there of likely take-up rates that could be achieved through different approaches to consumer choice?

Response: Whilst recognising the importance of customer choice in relation to the collection of personal data, the ERA's members do not believe there is any comparable evidence to support what likely take-up rates could be achieved to gain consent for use of information from smart meters through different approaches to consumer choice. The ERA is not aware of any other industry that provides essential services to consumers, where consumers are given the choice as to whether or not information about them is collected or used in order to provide such essential services.

We have previously provided evidence to DECC that in terms of energy suppliers' experience in gaining any form of consent, a typical letter to consumers seeking consent generates approximately a 1-2% response rate at best. While it is recognised that there are a number of ways of collecting consent, analysis of academic research suggests that only between 14-31% of all consumers would opt-in over time⁶. By applying this logic to the principles of an opt-in regime for access to smart metering data, 86% of the population would not be actively participating in the benefits associated with smart meters, with the exception of those benefits associated with delivering accurate, non-estimated energy bills. This will not deliver the benefits case for GB smart metering.

Question 18 – What current and future technical options exist for energy consumption data minimisation/privacy enhancing technologies? How might aggregated or anonymised data be provided in practice? Would this imply additional services to be provided by the DCC?

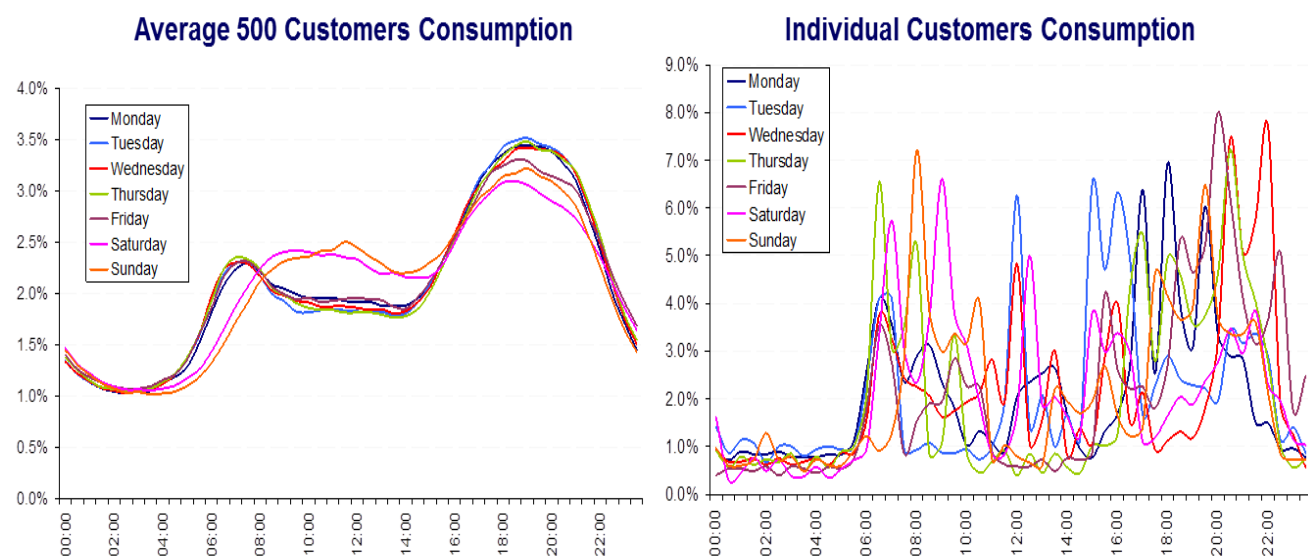
Response: The ERA is aware of potential data minimisation and privacy enhancing technologies that could be utilised for smart meters, and that some very small scale trialling is being conducted. However, as yet, they remain largely unproven on a commercial scale, and are therefore not considered as viable options for the GB market at present. Once such technologies are proven, consideration can then be given to their suitability to the GB energy market, with appropriate cost benefit analysis carried out at a later date.

When looking at aggregation of data, it is important to recognise the effect that aggregating data has in terms of clouding the real picture. The diagram on the right below shows weekly electricity consumption from a single domestic customer with a smart meter installed. The diagram on the left then aggregates the electricity consumption with 500 customers.

⁶ Not all of the ERA's members agree that results as low as 14% are achievable and suggest that 10% is more realistic

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As shown above, this paints a very different picture of individual consumption compared to the aggregated picture. It is therefore essential that before any decisions are taken in relation to aggregation of large groups of consumers, that consideration is needed as to the level of aggregation that would be acceptable, and whether or not there are other anonymisation techniques are more appropriate given the level of importance that consumption data from smart meters has to industry as a whole, and in particular its importance for suppliers to deliver the benefits case for smart meters.

In terms of aggregating or anonymising data on such a massive scale, we do not believe there has been enough consideration as to how this could be delivered for the GB market. If aggregation or anonymisation of data is required for all, or a large proportion of all GB households (up to 86% of all GB households if an opt-in regime is required, as suggested in our response to Question 17 above), then this result in the need for some form of massive central industry database - something that both Government, and industry have shied away from for obvious reasons. There are already significant privacy concerns being raised from privacy advocates in relation to smart meters – it is the ERA's view that these concerns will increase significantly if any decision was taken to create significant central databases, similar to the concerns raised during plans for a national identification database.

If a decision is taken that requires data to be aggregated or anonymised before it is used for specified purposes, consideration is then need as to who carries out that role. To date, the programme has been adamant that the DCC is acting merely as a conduit between smart meters, and parties requiring information from them, and therefore at no point has there been any expectation that the DCC would need to procure a data aggregation or anonymisation service on behalf of the industry. The ERA and industry as a whole would expect Government to carry out a full impact assessment and appropriate cost benefit analysis exercise to justify any decision in this area, regardless of how or who would be carrying out aggregation or anonymisation activity.

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Question 19 – What parts of the privacy policy framework do you think should be delivered by regulation and why?

Response: The current regulatory framework in the energy industry has survived without any specific privacy policy to date, and whilst the ERA fully understands that the roll-out of smart meters does throw up new privacy issues, we do not believe there is a need for significant regulatory intervention in this area.

We note that in Ofgem's notification to the statutory consultation on the Smart Metering Consumer Protections Package (the Spring Package) on the 30th June 2011, that in terms of data privacy, Ofgem intend to protect customers' interests by enforcing consumer protection law where necessary. They also re-affirm that the Information Commissioner's Office can also enforce data protection law.

Ofgem go on to state that under consumer protection law, suppliers offering smart meters must provide customers with all relevant information about new terms and conditions, the data which the supplier will collect and any rights which customers have to opt out of that data collection. They conclude that ultimately, customers who are not happy with the smart meter package on offer can choose not to accept it, and that suppliers must ensure customers can make well-informed decisions in this regard.

Whilst Ofgem's statements were aimed around smart metering offerings available from early movers (those suppliers offering smart meters in advance of the mandated roll-out), the same principles and consumer protection laws apply equally to the mandated roll-out of smart meters. The ERA's members are fully aware of their obligations under the Data Protection Act, and are putting in place arrangements to ensure compliance with those obligations as part of their preparations for the mandated roll-out, and foundation stage installations.

As mentioned previously in this Call for Evidence, the ERA has been developing its own Smart Metering Privacy Charter, which sets out the commitments of all of our members to ensure that consumers are fully aware of data that will be collected from smart meters, and that consumers will have the information they need to be able to make informed decisions regarding the processing and use of their data. The Charter also commits suppliers to ensure that consumers know who to contact within their organisations to exercise their choices, and who to contact if consumers believe information held about them is incorrect.

In terms of the privacy policy framework, and what should be delivered by regulation, the ERA believes that existing regulation and consumer protection law associated with data privacy is sufficiently robust. In developing the ERA Smart Metering Privacy Charter, our members have already provided clear commitments to deliver the appropriate transparency to consumers as required under the Data Protection Act. Each of our members will continue to work alongside the Information Commissioner's Office and consumer representatives to further identify best practice for data privacy, and reflect changes within the Privacy Charter when appropriate.

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Question 20 – What is the most effective way to set out any sector specific protections around privacy (e.g. licence obligations or other alternatives)?

Response: As discussed in our response to Question 19 above, the ERA believes that existing Regulation and Consumer Protection Laws, coupled with the commitments our members have made in the ERA Smart Metering Privacy Charter deliver a robust set of privacy protections for energy consumers.

It would be highly inappropriate to introduce any further sector specific protections without clear evidence they are needed. Additionally, the ERA and its members would also need to assess how any such sector specific protections would be measured, audited and enforced. If evidence is available to support a need for sector specific protections, then the ERA and its members will be happy to work with Government to put in place any additional measures that are felt necessary.

Data Access

Question 21 – What practical options for authentication would provide the right balance between allowing easy access to consumer data in the home while providing the necessary privacy protection? Are there any other issues or options that the programme should be considering in developing the approach in this area?

Response: The ERA and its members are already contributing to the ongoing discussions within the ODAG Data Access Group, and will continue to support the work being undertaken as part of those discussions.

In terms of the key considerations for allowing easy access to consumer data in the home, the ERA believes that these should be:

- Security and privacy; and
- ease of use for consumers.

The smart metering implementation programme already has security & privacy at the heart of the SMIP development cycle, and any outputs and potential options from the ODAG Data Access Group will need to be considered by the existing Security and Technical Expert Group. In terms of ease of use for consumers, it will be essential that consumer groups continue to provide input into the ODAG group as part of the ongoing work.

Regarding the technical options for providing consumers with easy access within the home, the ERA's members support the principle of a 'Bridging Device' to link between the smart metering HAN, and a communications network within the home (such as a consumers own Wi-Fi network). We are aware of some of the potential options for authentication in this area, and these options will need to be considered accordingly. However, as stated above, any process must deliver the appropriate level

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of security and privacy, whilst ensuring the process is as easy as possible so as not to discourage consumers making use of the data available to them from smart meters.

Question 22 – Are there other issues that need to be considered to make using the HAN a viable route for access to data in the home, from either a process or consumer perspective?

Response: There are a number of issues that the ERA believes need to be considered as part of the ongoing discussions in this area. The list below is in no particular order, and the ERA has not attempted to provide potential solutions to the issues listed:-

- A decision is required in relation to the HAN – this is a critical path activity for the programme as a whole
 - Without a HAN decision, the options for using the HAN as a viable route for access in the home cannot be assessed
- Any solution such as a 'Bridging Device' must meet agreed standards – this must form part of any technical governance or accreditation regime put in place for smart metering
 - It is likely that energy suppliers will be the first port of call for consumers who are having difficulty connecting any device to the HAN – suppliers can only assist consumers if there is a standard approach for all
- Costs of any solution must be a key consideration – if the costs are disproportionate to the benefit available to the consumer, take-up will be extremely limited
- Any solution must not affect the utility robustness of the smart metering HAN – this should be covered under the STEG work, but the ERA's members would like to reiterate this point
- Consideration will need to be given to instances where the smart metering HAN signal is likely to be hindered due to characteristics of the consumers property
 - Would additional 'kit' be required for known 'difficult' property types?
 - Who pays for any additional 'kit'?
 - If there are two different HAN's in the property, does this create additional issues?
- A more general issue is around Change of Tenancy and Change of Supplier events – does the authentication process need to change when these events occur?
- Whilst access will be given to information stored in the smart meter, what other information will be needed for the information to be of use?

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- It is assumed that consumers will access 13 months HH consumption history and latest prices – if prices have changed in that 13 months, how will the consumer obtain details?

Question 23 – What sort of arrangements would provide an appropriate balance between providing ease of access for consumers seeking to sign up to new services and adequate protection for consumers' data when accessed via the DCC?

Response: The same principles apply as in our response to Question 21 above. Any arrangements need to ensure that Security and Privacy is maintained, and that there is a minimal amount of effort required from consumers. Arrangements must also allow the energy services market to develop, ensuring there are no perceived barriers to market entry through complex or complicated processes.

The ERA supports the recent conclusions following discussions within the ODAG Data Access Group that it is not appropriate for energy suppliers to operate an access code or unique PIN regime for authenticating access to data from the DCC. With those discussions now steering towards a 'one-off PIN' suggestion, and with different alternative approaches being suggested by other parties, it will be important to ensure that all stakeholders are fully engaged in the discussions going forward.

Question 24 – Are there other issues or options that the programme should be thinking about for the foundation stage or for non-domestic customers to facilitate access to data?

Response: The non-domestic market already provides its consumers with access to data through commercial arrangements between suppliers, Metering Services Providers (MSP's), and consumers. However, there are still issues emerging as to how the non-domestic market might work in practice when a consumer has contracted with a MSP directly, for example, if a supplier has some very specific obligations that require access to certain data, and the MSP has no relationship with the supplier – how does the supplier get access to that data? Issues such as this will need to be resolved by the programme, and the ERA is confident that resolution can be found.

In terms of the Foundation Stage, Government must recognise that there is unlikely to be a 'one-size-fits-all' approach to facilitate access to data for consumers within the home. Suppliers are likely to provide access via bespoke on-line solutions on request, rather than create what could turn out to be complex, expensive temporary arrangements that might have a limited shelf-life. Any onerous obligations on suppliers during the Foundation Stage to provide access to data for consumers could add unnecessary costs, many of which will naturally be borne by consumers, especially if they have to purchase one type of device for Foundation that might not be compatible for the enduring solution.

Question 25 – Do you have any suggestions as to how the foundation stage can be used to further learn about the approach to data access and privacy?

Response: The ERA fully accepts that the Foundation Stage should be a test & learn phase for market participants, and believes that Government, where possible, should allow the market to develop

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naturally, with some freedom of how parties operate within the existing regulatory framework and Consumer Protection Laws applicable. The Foundation Stage will be the first opportunity for many parties to challenge many of the assumptions made to date in terms of data privacy.

Where issues are identified within the Foundation Stage, industry and Government can work together to identify appropriate solutions, and put in place the necessary changes based on real evidence that changes are needed. It remains the ERA's view that to date, much of the debate around the approach to data access and privacy has been largely based on assumption and opinion, rather than debate supported by appropriate evidence.