Response To Ofgem Consultation: Promoting Smarter Energy Markets Issued 15th December 2011 Closes 7th March 2012

Contact: Colin Boughton- Smith, Managing Director

Style of Consultation Document

The style of the document that includes defined propositions and associated particular questions, constrains free thought and innovation. With EMT's past experiences with Ofgem, whether this is done purposely to swing perceived opinion, or, just continues the evolved style set by previous consultations, is unknown. However, our suggestion is that "free thinking" should be encouraged in any such consultation.

Hence the responses included in this document are not tuned merely to the requested responses.

EMT's Status

EMT is, we believe, the most experienced of any concern offering consumer (mainly C&I consumers) based/owned aM&T/AMR in the UK. We have been providing, predominantly, low power radio based, multi-utility AMR (DATA BIRD) since 1993 during which time we have won several awards for innovation. Prior to this, as energy consultants, as now, our ethos has been utility consumption and cost savings; the focus over the last decade being mitigating associated carbon emissions.

EMT, with support from ESTA, was the principal instigator of the Carbon Trust's SME Smart Metering trials. Examples of utility saving by the application of DATA BIRD aM&T are featured as case studies in the final report of the Trials.

EMT is effectively an early innovator and pathfinder in the Smarter Energy Market.

EMT Welcomes The Opportunity to Place On Record, Our Experienced View

In our quest to develop and roll out consumer based/owned aM&T and AMR, we have lobbied Ofgem (formally Ofgas & Offer, when they were separate) for many years for consumers (or, agents such as EMT, acting on their behalf) to obtain AMR interface access *to the meters by which they are charged* (fiscal meters). EMT also sat on the ill-fated Ofgem/Elexon New Metering Technology Working Group (NMTWG) where Ofgem/Elexon spent most of their time "attempting to put AMR to bed" rather than embracing the new opportunity for UKPLC.

This, and more recent "fobbing off" on consumer meter interface issues has left EMT cynical of both the motives and "independence" of Ofgem when they say:

- *Helping reduce costs and barrier to entry* (Consultation Page 2)
- *Positive consumer engagement* (Consultation Page 2)
- *Protects the interest of consumers* (Consultation Page 3)

Energy Metering Technology Ltd
Lloyd House, 57 High Street, Burnham, Slough SL1 7JX Telephone. 01628 664056 Facsimile. 01628 668978
www.energymeteringtechnology.com

- *Principal objective – protect the interests of existing and future gas and electricity consumers* (Consultation Page 4)
- Etc.

We ask has the EU Smart Metering Directives and DECC at last forced Ofgem to "change its spots"?

At least this consultation allows us, with our experience, to have a say. So EMT welcomes the opportunity.

Emphasise of Document – Interests of Consumer or the Supply Industry?

Despite almost every opening page of the consultation document saying the smart metering/Smarter Energy Market is for the consumer, the body of the document appears to focus around the Supply industry delivery.

Unfortunately, this is not a surprise as Ofgem has allowed a very "slanted playing field" when it comes to lobbying on energy/utility supply issues. Even before the EU Directives emerged, decisions where being made via Ofgem where there was absolutely no consumer involvement or focus. The "suits" representing the supply industry and big meter manufactures are many at all the recent meetings EMT has attended on issues relating to smart metering roll out; but very few consumer representatives, if any, are present.

Ofgems's Role – *Identifying and Tackling Current Issues* (Page 4) & *Important part to play ……during the transition …..(*Page 5)

As stated above, EMT has been lobbying Ofgem for years on issues relating to consumer based AMR fiscal meter interface but they have never taken up or tackled the current issues we raised. Again, has Ofgem "changed its spots"?

EMT has raised many issues with Ofgem over the years that have been barriers to *consumer based aM&T/AMR* roll out and have been fobbed of almost every time. In the past EMT has been told by Ofgem "*let market forces sort issues out*" but more recently, since the EU Metering Directives have been around, *"all will be sorted by smart metering roll out".* But UKPLC carbon saving obligations to the world cannot wait for smart metering roll out!

EMT wishes to know, what Ofgem are doing during about promoting the success story of C&I aM&T (Carbon Trust) and sorting out the issues around, consumer based AMR during the transitional time between now and smart metering roll out?

Using this AMR success story as a promotion model, consumers might be encouraged to engage in smart meter roll out and associated Smart Energy innovations.

Energy Metering Technology Ltd
Lloyd House, 57 High Street, Burnham, Slough SL1 7JX Telephone. 01628 664056 Facsimile. 01628 668978
www.energymeteringtechnology.com

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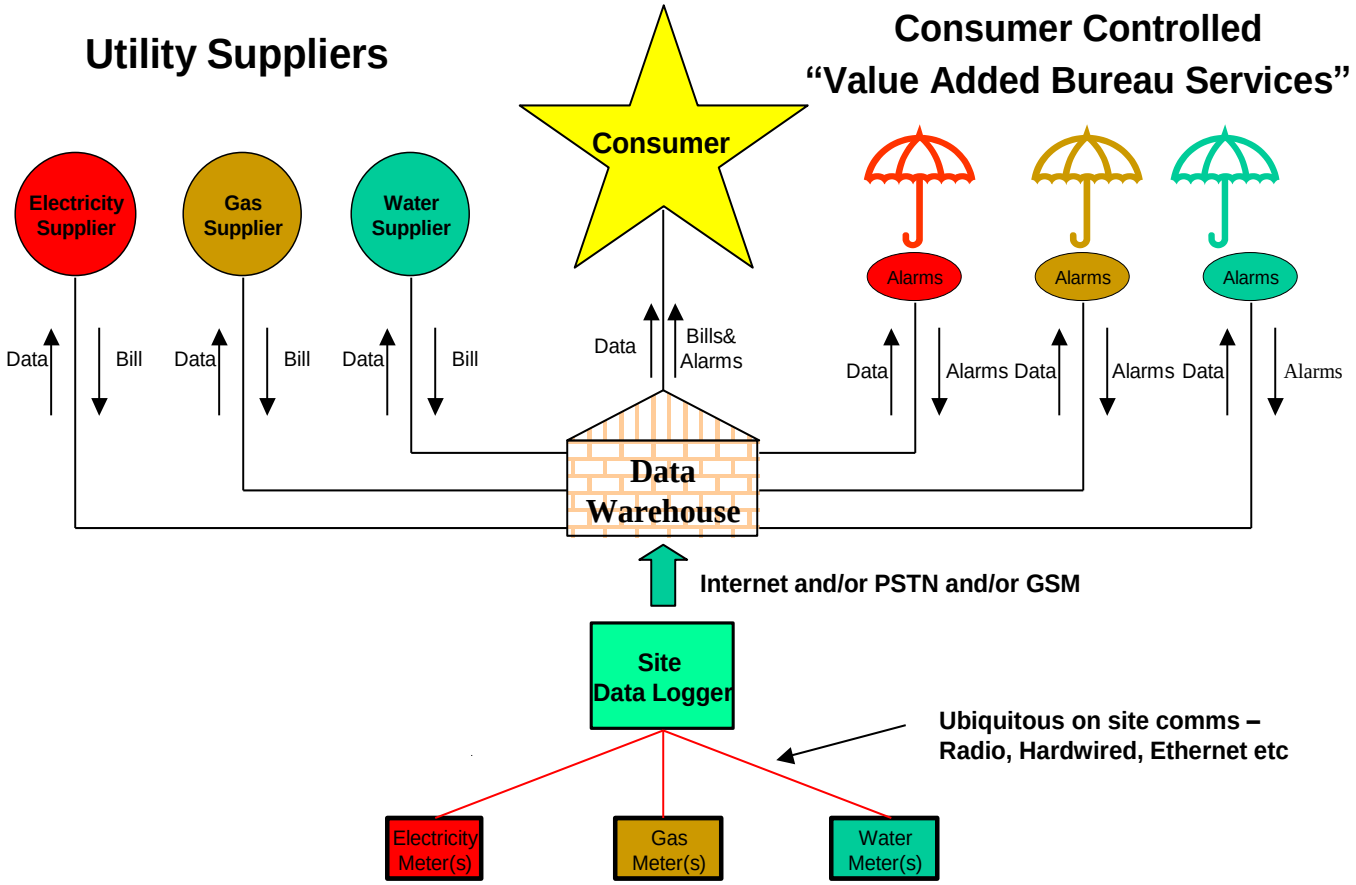
Should The Consumer Not Be The Star and Rule?

Back in 2002 EMT gave a presentation to the New Metering Technology Working Group (NMTWG) about the benefits AMR could bring to utility consumers. *A picture paints a thousand words*; below is one of the more succinct slides of that presentation:

Consumer Rules OK!

Alternative Data Warehouse - Consumer Controls Access to Data



Slide from EMT presentation to NMTWG June 2002

Here the slide/diagram depicts the consumer as "the star" and the organisation Utility Suppliers and companies like EMT, who offer utility related value added services, should pander to. The consumer is seen to have control of who has access to their meter/consumption data in the "data warehouse" ; the latter can be likened to the proposals for the DCC. See comments on DCC later.

Energy Metering Technology Ltd
Lloyd House, 57 High Street, Burnham, Slough SL1 7JX Telephone. 01628 664056 Facsimile. 01628 668978
www.energymeteringtechnology.com

This, EMT believes, is very pertinent to smart metering roll out and the development of smarter energy markets. The EU Smart Metering Directives appear also to empathise, since the Directives seam to place the general pecking order of importance for smart metering on the consumer being first (accurate and timely billing), carbon emission mitigation, second, and third and last, fiscal management of utility provision by the utility suppliers, turning the existing UK situation, very much on its head.

In a free market it must be beyond question that the Consumer should “rule” but now we are some 22 years from the start of utility privatisation, has this yet sunk into the power hungry supply industry and the associated regulating authorities? EMT do not see, or experience any realisation of this in our grass route level dealings with utility suppliers/MOP/MAMs when attempting to get simple fiscal meter interface for our customers. Indeed, the different component organisations of the utility supply industry, utility suppliers/MOP/MAMs, appear to have even less consumer focus than they did when they were government owned monopolies. That is, at least when it comes to consumers wanting to explore and reduce their consumptions.

Looking For “Consumer Buy In” - Is The Psychology/Atmosphere Right For The Supplies To Be The Face Of Smart Metering Roll Out And The Development Of The Smart Energy Markets?

Mistrust of the Utility Supply industry by both the domestic and non-domestic consumer abounds. This is compounded by both the current recessionary times and the increases in utility supply prices.

Many organisations involved in utility demand side mitigation have gone on record to say that smart metering roll out should not be placed in the hands of the supply industry. Principally because the supply industry business is focused on selling more utility, not saving it! However, higher strategic authorities have said only large organisations such as Utility Suppliers can cope with the scale of the work required for roll out. Furthermore, the EU Smart Metering Directives have taken this forward by imposing smart metering roll out on energy supplier license conditions.

Yet the public are becoming increasing hostile to the utility supply industry!

Whilst it would appear that opportunities for any different avenue for smart meter roll out have gone too far to change course , EMT asks if the psychology and atmosphere between utility suppliers and consumer is in a fit state to expect consumer buy in?

An alternative would be to set up an intermediary(s) to deal with the public along the lines of William Press in the 1960-70 during the town to natural gas conversion.

Energy Metering Technology Ltd
Lloyd House, 57 High Street, Burnham, Slough SL1 7JX Telephone. 01628 664056 Facsimile. 01628 668978
www.energymeteringtechnology.com

Consumer Confusion Abounds Now - Has The Consumer The Appetite For Further Levels Of Utility Supply Activity And Potentially More Confusion?

Consultation Paper – Page 9 - *Many consumers currently see the energy markets as complex and hard to navigate.*

From the recent press it is clear that the consumer is bewildered and confused by just the wide tariff options currently available and this is, in itself, a barrier to supplier switching.

If, as indicated in the consultation document, the consumer is going to be provided with other layers/supply options to choose from, are they going to be too bewildered to explore or take up these opportunities?

As suggested some ten years ago, good quality consumption data, from good quality and reliable AMR should enable at least the simplification by combining/consolidation of the unnecessary MOP, MAP, DA, supplier designations and associated data flows. Which, when combined with the requirement for consumers to go through the supplier hub present an enigma to the consumer.

Supplier Switching

Most consumers do not take up the opportunity to switch suppliers since they find it too confusing and bureaucratic; many of those who have switched say that due to bad experience they will never do it again. On most occasions the bad experience is due to getting a closing read for out going/incoming suppliers and the bureaucracy of change over.

With good quality data from good quality AMR, a well designed data base infrastructure and access to data under the control of consumer rather than the supply industry, utility supplier switching (or indeed "value added utility services supplier" switching) should be able to be made as simple as ABC.

Indeed, along with the following narrative, this is what the logic of the diagram (see above) presented to the Ofgem/Elexon New Metering Technology Working Group (NMTWG) in 2002, was attempted to portray:

Consumer is supplied by Supplier A but has been made a better offer by Supplier B and has agreed to take-up Supplier Bs offer commencing at time "t". The consumer (or, consumer's appointed agent) accesses the data warehouse/data base and simply arranges for the access of meter data (etc) to Supplier A to cease at time "t" and access to the meter data for Supplier B to commence at time "t".

Will the DCC be independent of the Suppliers and controlled by independent body/authority acting on behalf of consumers?

Energy Metering Technology Ltd
Lloyd House, 57 High Street, Burnham, Slough SL1 7JX Telephone. 01628 664056 Facsimile. 01628 668978
www.energymeteringtechnology.com

It is EMT's contention that by allowing the consumer to control access to their data through the data warehouse to both utility suppliers and value added utility services providers , the foundation will be established for a real competitive in utility supply and innovative Smarter Energy Market to develop and thrive.

Two Way Communication To The Smart Meter – With The Internet, Is It Really Needed

It would appear that during the current debates on the structure and design of smart metering for the roll out, the heavy Utility Supplier Industries' lobby, with their quest to obtain control and monopolise the smart metering market, are exploiting every opportunity to create false barriers or overemphasis potential barriers. One of these is meter data security, which, in turn, is attempting to force the requirement for dedicated, two way comms to the meter (Appendix 2 Table Item B) rather than simplex comms and also causing the use of the Internet as a comms vehicle to be frowned upon.

In EMT's work in the C&I sector, two way comms "meter to data hub, data hub to meter" vs. just "simplex comms from the meter to data hub" has not seen to be of much benefit to the consumer. That is, when a flexible, alternative method of consumer (EMT's Customer) access to meter data (and calculated data from meter data) already exists via the Internet.

EMT's contention here is ensuring secure Internet access by consumers (or, their securely assigned agents/service providers) to their consumption data, is another key element for innovative Smarter Energy Market developments.

NB. Meter Data Security - Since 1993 EMT has been offering aM&T to many blue chip organisations, including for example the MOD and the FCO, but we have never had a meter data security issue. Since we read normally every 30 minutes and store all data to allow historic analyses, our data storage is not trivial.

Water - If A Dual Energy AMR System Is Going To Be Rolled Out, Why Not Include Water?

EMT has been installing multi-utility since 1993 and it has always been the identification of water wastage that has been the most common and most rapidly realised "low hanging fruit" utility saving. RAF Henlow in 1993 was the first ever DATA BIRD AMR installation; water leakage/wastage at the rate of 25 cubic metres per hour, 24/7 was immediately identified as soon as the system was applied.

In addition to a water meter (normally always present in the C&I market albeit it might need changing out for a pulse output meter), to add water to a dual energy AMR is simply a further channel.

C&I Consumer certainly enjoy one AMR/aM&T system for all bought in utilities rather than disparate systems for the different utilities. Joined up thinking - so why not design to accommodate water as well as gas and electricity?

Energy Metering Technology Ltd
Lloyd House, 57 High Street, Burnham, Slough SL1 7JX Telephone. 01628 664056 Facsimile. 01628 668978
www.energymeteringtechnology.com

(EMT, together with ESTA, are currently discussing with Ofwat the possibility of a standard approach to enable water consumers to get data interface to the water meters by which they are charged)

Energy Metering Technology Ltd
Lloyd House, 57 High Street, Burnham, Slough SL1 7JX Telephone. 01628 664056 Facsimile. 01628 668978
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RESPONSES TO CONSULTATION PAPER PROPOSITIONS

As well as the statements above, EMT has only responded here where we have experience or views. For clarity, EMT comments are in red. Most of Chapter 4 and are deep Utility Supplier issues and not in our area or focus.

CHAPTER: Three – Enabling retail market development

Proposition 1: Time-of-use tariffs should help many consumers lower their energy costs, but improved engagement will be needed to help all consumers make informed choices.

Agreed, but clarity must prevail for consumers to participate. With the consumer able to get access to HH data and the help of value added service suppliers, consumers will be able to run assessment of the best tariffs to sign up to. This is already a normal analyses of aM&T meter data analysis software.

Proposition 2: More efficient use of demand-side response can lower overall energy costs, but this will need coordinated changes to regulatory and commercial arrangements.

Agreed, but this will be extremely difficult to bring about; it did not succeed in the 1980's when large industries were manually requested to shutdown during peak winter months, maximum demand charges and maximum demand load shedding did also not take off. Also, the once very popular, firm/interruptible gas regimes seem seldom to be used these days.

The savings are probably second order compared to "low hanging fruit" savings by consumers having access to HH profiles with or without the support of value added service providers.

Proposition 3: Innovation in energy services would increase the consumer benefits of smart metering and can happen without major change to the regulatory framework.

Energy Services that can be offered mainly relating to utility consumption mitigation on the back of smart metering in the C&I market is very much the area EMT has been path finding for the last 15 years. It has become known as aM&T – Automatic Monitoring and Targeting (attributable to the Metering & Monitoring Sub-Group of ESTA). The success of C&I aM&T has demonstrated that with smart metering, innovation in energy services can flourish to benefit the consumer, not only in consumption, cost and carbon savings but in many other ways. But the roll out of aM&T in the C&I market is being hampered by the difficulty in getting AMR interface to the meters by which consumers are charged – i.e. fiscal meters. See previous comments above. Ofgem are currently saying their hands are tied (by Regulation?) – *wait for smart meter roll out*. So clearly changes to the regulatory framework are required.

As well as large campus type sites, EMT has multi-utility aM&T systems in many smaller, non-domestic premises –schools, offices, fire stations, SME etc. and is now involved with some trials in both upmarket domestic and affordable domestic dwellings. When DATA BIRD was developed in

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Lloyd House, 57 High Street, Burnham, Slough SL1 7JX Telephone. 01628 664056 Facsimile. 01628 668978
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1993 under the auspices of the BRE Energy Best Practice R&D Scheme, the benefits of also being able to monitor the "drivers" of utility consumption were considered and the ability to count production, measure temperatures etc. incorporated into the AMR system design to enable both the "drivers" (reason for consumption) and the "driven" (metered utility consumption) to be simultaneously monitored. (see Carbon Trust M&T Guides for a deeper explanation)

In most small domestic premises the primary reason for consumption is to provide acceptable internal environmental conditions inside a building e.g. light levels, space temperature; the provision of energy for space heating usually being the predominant reason for energy utility consumption.

By being able to monitor internal and outside temperature (degree hours) as well as the actual energy consumed, many opportunities for savings can be identified that would not have been evident from just AMR. Further value added services, for example, when temperatures fall too low and the vulnerable could be at risk, can also be automatically assessed.

The point is that Energy Services would be able to extend further by having the flexibility to have add-on to smart metering monitoring features such as simple internal temperature measurement s etc.

Proposition 4: Consumers will have more payment options, without changes to regulatory arrangements beyond those envisaged as part of the smart metering rollout.

No comment – not our area.

Question 1: Do you agree with the propositions set out in this chapter?

Not all of them - see above for response to this question

Question 2: For each proposition, have we identified the elements of current market arrangements that could help or constrain the realisation of benefits for consumers?

Not all of them - see above for response to this question

Question 3: For each proposition, have we identified the key issues, such as the timescales for any changes to market arrangements?

No - see above for response to this question

Question 4: Are there additional opportunities for development in retail energy markets that we should include in the scope of our work?

Yes - see above replies for our response to this question.

Energy Metering Technology Ltd
Lloyd House, 57 High Street, Burnham, Slough SL1 7JX Telephone. 01628 664056 Facsimile. 01628 668978
www.energymeteringtechnology.com

CHAPTER: Four Improving Market Processes

Proposition 5: Settlement arrangements should use actual daily (gas) and half hourly (electricity) meter reading data in order to improve their accuracy and efficiency.

Agreed but not our area. We would suggest benefits compared with other consumption saving potential would be minimal.

Proposition 6: The change of supplier process should be reliable and fast, so that Customers' can confidently switch supplier on a next day basis.

Totally Agree – see comments Supplier Switching above.

Proposition 7: Electricity data processing and aggregation services should be procured centrally in order to reduce cost and support fast customer switching

Agree all must be done to allow faster customer switching but Central Procurement - sounds like molehill into a mountain! As developers of data base software, is it that difficult and expensive?

Proposition 8: The Smart Energy Code should be used as a vehicle to consolidate existing industry codes dealing with retail issues in gas and electricity to facilitate market development and reduce administrative burdens.

Agree – there is much which can be automated to allow call centres to shrink

Question 5: Do you agree with the propositions set out in this chapter?

see above replies to each proposition

Question 6: For each proposition, have we identified the right sources of costs and benefits associated with achieving them?

Not our area

Question 7: For each proposition, have we identified the key issues, such as the timescales for any changes to market arrangements?

Not our area

Question 8: Are there additional opportunities to reform market processes that we should include in the scope of our work?

Yes:

Energy Metering Technology Ltd
Lloyd House, 57 High Street, Burnham, Slough SL1 7JX Telephone. 01628 664056 Facsimile. 01628 668978
www.energymeteringtechnology.com

1. put in place all processes that are necessary for consumers to get direct access to the meter by which they are charged.

2. put in place all safeguards and codes of practice to prevent suppliers (or their agents) from destroying existing consumer based AMR/aM&T meter interfaces

Energy Metering Technology Ltd
Lloyd House, 57 High Street, Burnham, Slough SL1 7JX Telephone. 01628 664056 Facsimile. 01628 668978
www.energymeteringtechnology.com