



29 October 2007

Geoff Hatherick
Gas and Electricity Consumer Policy
Energy Markets Unit
Department for Business, Enterprise and Regulatory Reform
Bay 210, 1 Victoria Street
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Dear Geoff

ELEXON Response to BERR Consultation on Energy Billing and Metering

This is the response of ELEXON Limited to the consultation issued by BERR on 3 August 2007 on the proposals in the 2007 Energy White Paper relating to billing and metering.

Introduction

ELEXON is the Balancing and Settlement Code (BSC) Company for Great Britain. Its role is to ensure the proper, effective and efficient implementation of the BSC, which is established under the electricity System Operator's transmission licence for the purposes of electricity balancing and settlement. To enable the settlement process, the BSC contains requirements for the submission of electricity metering data, and the Central Systems which ELEXON manages receive and process this information.

Accordingly, whilst ELEXON welcomes the opportunity to comment on the issues raised in the consultation, this response is limited to the questions posed in sections 7.7, 7.11, 7.15 and 10.36 of the consultation.

Paragraph 7.7

What are your views on the segment of the market that we propose will be subject to these requirements?

It is assumed that the objective of the rollout is to target those Non Half Hourly non domestic customers with the highest annual energy usage. An energy threshold (for example, of units billed in a year) as the criterion for smart meter rollout would align exactly with this objective. However this could present challenges in terms of implementing and monitoring compliance with the requirements.

The alternative suggested in the consultation is to use Profile Classes 5 to 8 as the criterion. This is likely to be easier to implement and monitor and, in general, the energy usage of these customers is higher than those in Profile Classes 3 and 4.

However, this does present Settlement with a number of risks. Firstly, the Profile Class definitions are designed to implement the profiling techniques used within Non Half Hourly Settlement to estimate energy usage in a given half hour period. Using them for another purpose, in a manner that has quite far reaching implications, creates a risk that they cannot be changed in the event that this was required for them to continue to fulfil their primary Settlement purpose. For example, if a review of profiling concluded that the criteria for

Profile Class 5 to 8 should be revised, the external impact in terms of smart metering rollout could preclude this from being possible. Whilst such a review is not currently envisaged, any movement of Metering Systems from Profile Classes 5 to 8 to the elective Half Hourly arrangements as a result of the wider availability of Half Hourly interval data, could reduce the volume of Metering Systems within these Profile Classes to the extent that such a review became desirable.

Secondly, there is a small risk that costs will lead Suppliers to move significant segments of their Profile Class 5 to 8 portfolio into Profile Classes 3 and 4, by disabling the maximum demand register in order to avoid the obligation to install a smart meter.

Whilst not related to Settlement, an advantage of an energy threshold is that the threshold could be set high initially and reduced over time to ensure that the largest customers had smart metering rolled out to them first - so accelerating benefits realisation.

Paragraph 7.11

What impacts will this policy have on gas and electricity settlement processes?

Will changes to the Balancing and Settlement Code and the Uniform Network Code be required?

What changes would be required, and over what timescale, to allow energy to be settled on the time of use data provided by the smart meter rather than via a profile?

Under the current Settlement arrangements Half Hourly metering is mandated for customers with a maximum demand in excess of 100kW and is optional for customers with maximum demands of 100kW and below. It is assumed that "time of use data" in the question above refers to half hourly interval data. Whilst it is expected that the functionality of smart meters will include the capability to record interval data to a half hourly resolution, it is not clear whether there will be a specific obligation to use this half-hourly data for Settlement purposes, and the draft licence condition is silent on this. A change to the BSC would be required if Suppliers were to be obligated to submit this half-hourly data for Settlement purposes. If this obligation existed and the criterion for installing interval metering was Profile Class 5 to 8, these Profile Classes would become redundant. Regardless, any large scale movement of Metering Systems from Profile Class 5 to 8 to Half Hourly Settlement would have implications for any Metering Systems remaining on Profile Classes 5 to 8 in terms of the accuracy of their profiles.

ELEXON agrees that there will be implications for Settlement associated with the submission of more frequent meter readings (whether in the form of more frequent non half hourly readings or an increase in half hourly interval data) and anticipates that this is likely to have a beneficial impact on the accuracy of Settlement.

ELEXON recognises the potential for an increase in the number of sub-100kW Metering Systems being settled on the basis of half hourly metered data, and that the associated processes and controls were originally designed for the above 100kW sector. It is currently reviewing the appropriateness of these processes and controls for the sub 100kW sector.

A feature of the current architecture and design of the settlement arrangements is that almost all of the data processing at Metering System and meter reading level is undertaken

by agents appointed by Suppliers - and not by the central systems. Consequently, it is likely to be the systems of Suppliers' agents that would be most impacted by either an increase in the number of Metering Systems being settled on the basis of half hourly interval data or an increase in the number of non half hourly readings. There could be a minor impact on central systems of an increase in non half hourly metering configurations resulting from additional non half hourly time band tariffs but these systems have been designed to be scaleable and so impacts are likely to be relatively limited.

Paragraph 7.15

Do you have any views on the attached licence condition for this policy?

The definition of a "Smart Meter" in Schedule 3 'Licence Condition Y (Smart Meters for Business)' includes the requirement to store "measured electricity consumption data for multiple time periods". There are already Non Half Hourly meters which measure consumption in more than one time-band (or are capable of measuring consumption in more than one time-band) which, with the addition of remote access, would seem to meet this definition of a "Smart Meter". The definition, as stated, appears to allow for such meters, whereas the arguments in Section 7 assume the availability of half hourly interval data. For example, paragraph 7.1 refers to meters "which provide readings ... on an automatic half-hourly basis for electricity" and paragraph 7.3 refers to smart meters as "an interval meter ...". Assuming that the intention is that smart meters should be capable of retrieving and storing half hourly interval data, this would benefit from clarification in the licence condition.

Different industry initiatives have various definitions of a "smart meter" and a uniform definition would be useful.

The draft licence condition requires "remote access" to data, but not that the meter should be remotely configurable (although paragraph 7.3 refers to "two-way communication"). Remote configuration features in other industry definitions. Paragraph 7.11 sets the Government's expectation that energy suppliers will offer "more complex time-of-use tariffs that could result in network benefits and peak-load reductions". The effective use of such tariffs would clearly be dependent on the flexibility to set and change these time-of-use tariffs remotely.

Paragraph 10.36

What is the likely scope of the IT infrastructure and investment and the timescale over which this would fall? (This should reflect requirements both within and between companies required to support a smart meter roll out and the cost implications to energy suppliers and consumers.)

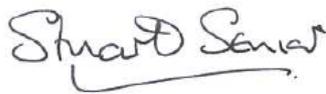
Paragraph 10.36 recognises that changes to support the deployment of smart meters may include "changes to core industry processes and rules such as those that support the customer transfer process or the rules of the Balancing and Settlement Code". ELEXON's response is limited to the potential for changes to the BSC. It is likely that a roll-out of smart metering in the domestic market could be achieved with only minor changes to the BSC. However, it seems unlikely that the benefits of a full roll-out of smart metering could be delivered within the existing process framework. For example the Energy Retail Association's "Smart Metering Operational Framework" appears to present the opportunity for a more "meter-centric" process model, with Suppliers and agents obtaining more information about the configuration of the meter by interrogating the meter itself, rather than having this information disseminated by the Meter Operator via information flows over the industry data transfer network. It seems likely that the industry would need to re-shape itself in order to

fully realise the benefits that this technology will present. This could result in very different industry processes (and potentially new or revised industry roles). This, in turn, has the potential to impact both the broader industry (including the non-domestic sector) and the BSC, but at present the extent of such impact remains unknown.

A further potential impact is that, in order to take full advantage of the new metering technology, there may need to be some alignment of processes within the electricity and gas markets (particularly where metering and communication requirements overlap), which could have ramifications in terms of the industry governance framework, including the BSC.

ELEXON would welcome the opportunity to discuss the above points further. In the first instance please contact Jon Spence (020 7380 4313) or Peter Davies (020 7380 4036).

Yours sincerely

A handwritten signature in black ink that reads "Stuart Senior". The signature is written in a cursive style with a horizontal line underneath the name.

Stuart Senior
Chief Executive