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 From:
 Emma Kelso

 Sent:
 09 May 2008 17:00

 To:
 Ben Smithers; Duncan Mills

 Subject:
 FW: New Metering Technology for Public Lighting

From: Lawton, Chris [mailto:chris.lawton@uuplc.co.uk] Sent: 09 May 2008 15:59 To: Emma Kelso Subject: New Metering Technology for Public Lighting

Ms Kelso

Thank you for your letter of the 1st April re New Metering Technology in Public Lighting and this opportunity to contribute briefly some thoughts to the debate

United Utilities Metering is both an accredited Meter Operator Agent and an accredited Meter Administration Agent under the BSC and as such has a keen interest in both Metered and Unmetered Supplies. We are currently the largest administrator the unmetered sector and operate some 40 Equivalent Meters.

The concept of metering for actual metering for street lighting is not new and has been around for some time in various guises, with a number of half way house steps between full metering and the unmetered option proposed. Examples would include the less than satisfactory option, recently proposed by Elexon's UMSUG, of marrying accurate switching times from CMS systems with predetermined inventory data. Given modern technology, the proposal to go to a fully metered solution would seem highly desirable and UU Metering would support this.

We note the comment in your letter that lamp columns are on longer than desired by the purchasing authority and that consumption is therefore higher than it would otherwise be. However, we doubt that metering will have any effect on this. Lamps will burn for the period determined by the photocells controlling them and the quality of these cells varies widely; it follows that cheap, poor quality thermal cells will give poor control of burning hours whilst higher quality electronic cells are perfectly capable of giving whatever performance characteristics the purchaser requires.

We also note your comment that consumption is underestimated by 10%. In our experience the major errors and inaccuracies with Unmetered Supplies stem from inaccurate highway authority inventories and from inaccurate load rating data used in BSCP520. Metering could correct this, but, rather than incur the cost of metering, it could be argued that simply lifting the load rating data values by 10% either across the board or by targeted changes, could resolve this error at low/nil cost.

The requirement for 'certified metering' a has long been held as a reason not metering street lighting but we believe this stems from a misinterpretation of Schedule 7 of the Electricity Act. We would contend that, as with industrial and commercial premises, street lighting supplies could be considered as exempt supplies, thus obviating the need for certification.

Similarly, the application or otherwise of MID in respect of street lighting has been hotly debated. Our own view is that as legislation is currently drafted MID probably does apply, as the metering is, we believe, for trade and that individual lamp loads cannot be aggregated to give the 100kW+ exemption for this purpose. However, we believe that MID, drafted to protect the (domestic) customer shouldn't apply and that it should be specifically excluded by legislation – as per 100kW+ metering.

In respect of the actual metering itself we would make the following suggestions;

- a) that the metering point should be coincident with the point of supply ie at the cut-out
- b) that the kWh measurement should be performed at the metering point rather than remotely, say from voltage and current data/analogues
- c) that a kWh register should be available at the metering point (though this could be via a data port rather than a physical display)

d) that any party involved in the metering or data collection aspects should be appropriately accredited - it is difficult to conceive that end customer provision of readings would be acceptable.

I do hope the above is of interest and adds to the debate. Please don't hesitate to contact me is should require any further information.

Best regards

Chris Lawton

Technical & Policy Manager and Meter Administrator

United Utilities Metering

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