Harvard
ENGINEERING PLC
Electronics Engineers & Manufacturers

Ofgem
9 Millbank
London
SW1P 3GE

21st April 2008

Dear Mrs Kelso,

Re New metering technology in public lighting

Thank you for your letter or 1 April 2008 and your invitation for feedback.

Whilst we agree that CMS is an essential technology that will enable UK municipalities to reduce their carbon footprint and energy consumption, we do not agree that metering public lighting via CMS is a useful or constructive activity.

Definitions of CMS

It seems you have been advised that there are two types of CMS systems, simple and advanced, the differentiating factor being that one has a metering chip and the other does not. We strongly disagree with this assessment of the available CMS technology.

We would draw the distinction in this way;

- Advanced CMS is a tool which enables the municipality to save carbon and cash through bi-directional monitoring, fault detection and dimming control of street lights and provides a means through which the municipality can account for energy used ***within*** the current un-metered framework. When coupled with a modern electronic ballast, which powers the lamp, the electricity consumed is absolutely predictable and is not affected by variations in supply voltage, lamp age or luminaire age. Electronic ballasts are widely recognised to provide the necessary means to reduce energy consumption and when coupled to a Telemanagement system that can control them, they can contribute up to 3% of the UK's total carbon reduction target required to meet Kyoto.

- Simple CMS provides switching without means to actively control the energy consumed and therefore no means to reduce consumption. It may or may not provide a metering function.

We disagree that the electricity consumed will be reduced simply by metering, this is just not possible without additional control of the luminaire and it is not necessary to meter in order to control the energy consumption.

Harvard House, Westland Road, Leeds LS11 5XA
Tel: +44 (0)113 383 1000 Fax: +44 (0)113 383 1010
E-mail: info@havardeng.com www.harvardeng.com

State of the art CMS in an un-metered environment

In conjunction with Elexon, Harvard and a number of other CMS providers, local authorities, meter administrators, DNO's and REC's have established an equivalent meter standard which works within the current un-metered supply requirements. This version of advanced CMS can provide very accurate power consumption data to the meter administrator. Electronic ballasts for HID lamps, by definition, have constant and unchanging power consumption, regardless of supply voltage or lamp age and present a power factor of 0.99 through life. They can be driven by the CMS to dimmed levels with known power consumption at specific times and therefore kWh data can be collected accurately without the need for a meter.

The current guidelines developed by Elexon provide the incentive to municipalities to install CMS systems that are able to control monitor and account for energy consumption whilst still operating within the un-metered framework. It is not true that metering will provide an incentive; it will serve to confuse matters.

We agree that Elexon have identified charge codes that are incorrect by a factor of up to 10% but this is primarily related to old equipment which is being replaced with new electronic ballasts. Charge codes have also been modified. Current and ongoing investment in controllable electronic ballasts and CMS will eliminate these discrepancies and reduce consumption. Investment in metering will only tell the municipality that they are using more power than they thought; clearly not an incentive to adopt CMS!

Barriers to CMS

We feel that the appraisal of the perceived barriers to CMS is misinformed. The only barrier put forward is in relation to metering and the requirement of the metering act that demands a display on an appropriate meter. Since metering is irrelevant the demands of the act cannot be a barrier to adoption of CMS.

The most significant barrier has recently been removed through the work of Elexon and the public lighting community with the introduction of the new guidelines. These guidelines allow CMS systems to account for energy consumption by accurately recording switching times and logging the dimmed state that the ballast was in at those times. Elexon has now provided a mechanism to deliver this logged data to the meter administrator.

Consequences of developing another standard for CMS

A standard has been developed which is stimulating the adoption of CMS. We believe that the proposal to change the law to allow metering in an un-metered environment is un-necessary. It will not stimulate the adoption of CMS but will hamper its introduction.

Developing another standard will divert attention away from the advanced dimming monitoring and control CMS that provides all the benefits users require within the existing regulation framework.

Developing another standard will serve to confuse potential beneficiaries of CMS by suggesting that metering is required, when it actually isn't, and discourage them from adopting CMS for fear of increasing their energy costs.

The market has already started to install energy saving electronic ballasts linked to CMS. Investment should be focussed on promotion of the benefits that the newly developed standard brings within the established un-metered regime.

Yours sincerely

John McDonnell
Managing Director