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Dear Emma,

### **New Metering Technology in Public Lighting**

Thank you for your letter dated 1 April 2008, providing the opportunity for comment on this important industry development.

We agree with the high level principles contained in your letter, and feel that the introduction of a Central Management System (CMS) would be a welcome development for the Industry as a whole, and for the Unmetered Supplies mechanism in our Distribution Services Area. Such a system would certainly improve the use of our distribution network, in terms of operational controllability of the lighting equipment and from a losses perspective enhance the performance of not just our Grid Supply Point Group, but the Industry as a whole.

This development will align well to the criteria provided within your recent Electricity DPCR5 Initial consultation document, in the key area of environment, where you advise of required changes in existing industry practices to meet government climate change needs.

However, we need to be mindful that the implementation will potentially take several years to complete, and there will be system and process changes to consider, but we will support a programme of works and provide appropriate expertise to assist in the transition.

We provide below information to recognise the benefits of this development and also an overview of the downsides of the current regime.

#### *Proposed Method of Recording Usage*

The introduction of a Central Management System (CMS), with measurement capabilities, would be beneficial for the following high level reasons:

1. Improved accuracy of data on electricity consumption, subsequently providing accurate billing and Settlements information.
2. Full control of operational activity providing active management of usage. CMS would enable the dimming of lighting and indeed complete shutdown in certain areas/circumstances.
3. Positive impact on the environment with the potential to reduce carbon emissions and make more use of the ambient lighting that is available.
4. Identifies equipment faults remotely, reducing costs to Local Authorities and enabling more efficient fault resolution; therefore improving performance and ultimately assisting Electricity North West's network efficiency.

#### *Current Method of Recording Usage*

We calculate Unmetered Estimated Annual Consumption's (EACs) by using street lighting inventories, wattage values together with the recorded burn hours from the Photo-Electric Cell Unit (PECU). The problems encountered are:

#### *Street Lighting Inventories*

These are records of the equipment operated by the local authorities and our audits have revealed that they are not always up to date with unmetered equipment installations, correct wattage values or burn hours, which can result in underestimated EACs.

#### *Wattage Values (estimated)*

BSCP520 catalogues all approved street lighting equipment and details their estimated wattage values, but recent load testing has identified that the wattages for some lamps can be far higher than specified. Additionally, the load research carried out by the Electricity Networks Association (formerly the Electricity Association) in 2001, resulted in the re-evaluation of certain prescribed wattages.

#### *Burn Hours (estimated)*

The PECU array simulates the switching operation of the photo-cells and records the daily burning hours of the public lighting declared on an inventory. However, the array is not always situated in the area whose switching operation it is recording, and wouldn't, for example, identify a "day burning" lamp or indeed a non operational one.

In response to the two questions raised, I would comment as follows:

**Are there any consequences of proceeding with developing a new standard for CMS technology that we have not considered?**

- A working group made up of representatives from all interested parties should be set up to control development and ultimately implementation
- What will be the governance for the development and indeed the implementation stages of this new standard?
- Establishing “industry” ownership of CMS and the data it provides
- What would the accreditation process be for the service providers that administer CMS and which agents would receive the resulting data?
- Guidance on whether incentives should be available for the implementation of CMS and what form such incentives could take
- Build the process into the BSC audit regime

**Are there any potential impacts of facilitating CMS technology for public lighting which might adversely affect the market? This might include new barriers to entry or any negative impact on market participants or customers?**

- Agree a cut-off point for all “new” lamp columns to be accounted for under a CMS, all legacy lamp columns would then be subject to a roll-out programme
- As CMS is available in two protocols i.e. mains borne (asset owner approval required as may impact fault levels) or radio frequency; the impact of these on market participants will need to be taken into consideration to assist in deciding which is the best solution
- The roll-out of CMS would potentially need to be run in parallel with current processes, which will initially increase administration activities
- Tracking the transfer of equipment from the relevant inventories to a CMS
- Prudent to instigate trials within a cross section of areas to enable the best possible preparation
- System changes would be inevitable to incorporate the new processes

In essence, the introduction of CMS would be a positive step in taking the provision of public lighting forward; providing controllability of usage and accurate recording of consumption; removing the estimation from the process.

Yours sincerely,

**Paul Bircham**  
**Regulation Director**  
**Electricity North West Limited**