UMSUG paper – Changes to Miscellaneous Charge Code definition in the Operational Information Document

1. Purpose

This document is seeking to make changes to the definition of Miscellaneous Charge Codes to equipment that will allow for calculations to one decimal place of a watt where the circuit watts of equipment is less than 10W.

2. Issue

At UMSUG meeting 125 (item 7 in the minutes) there was a discussion about decimal places in the circuit watts for miscellaneous codes. Currently the OID states the following;

> 2.3.3 **Miscellaneous equipment**
>
> Miscellaneous equipment covers all other equipment not defined in either the lamps or traffic signals sections above. For this equipment the nominal Watt values are set to match the circuit watts. This allows for any local Code derived for equipment that may match a national Charge Code will provide the same energy calculation. Further guidance on local versus national Charge Codes is provided below.

and;

> ***4.1 Equipment that is less than 10 Watts***
>
> For equipment that is rated as less than 10 Watts BSCCo will issue circuit watts to the nearest one decimal place, e.g. 2.125 = 2.1 Watts (1.d.p.). Please note that control equipment (Charge Codes beginning with '90' and above) will still always be given circuit watts to two decimal places.
>
> Miscellaneous equipment is an exception and will always be coded to the nearest Watt to allow for the same value to be used as the nominal Watts in construction of a miscellaneous Charge Code.

and;

> **Definition of digits 4, 5, 6, and 7:**
>
> For miscellaneous equipment, the nominal Watts will always equal the circuit watts.
>
> **Definition of digits 8, 9 and 10**
>
> A numeric code that allows equipment with the same first seven digits of the Charge Code, but with different full circuit watts to be uniquely identified.

The discussion arose because there had been an application for a sensor node where the circuit watts were less than 0.5 watts meaning that the Charge Code would have 0000 as the nominal watts and consequently there would be zero circuit watts and a zero calculation for the consumption. These sensor nodes are part of the "Smart City" initiative and whilst there are possibly only a few installed so far, as the initiative grows there are likely to be significant numbers going forward. Potentially there could be a sensor on every streetlamp using similar consumption to a PECU, an energy consumption that should not be ignored.

In the third extract from the OID above the existing definition of 8, 9 and 10 is incorrect because at present the full circuit watts will always match the nominal watts digits so there cannot be different full circuit watts.

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3. Proposed changes to the Operational Information Document

This paper proposes separate approaches for nationally agreed miscellaneous codes and for locally agreed miscellaneous codes.

a) Where nationally agreed Charge Codes (as defined in 2.3.3 of the OID) are added to the Operational Charge Code spreadsheet, para. 4.1 of the OID shall be amended to allow for circuit watt values to the nearest one decimal place. (There are a few Miscellaneous Charge Codes where this has already been erroneously applied.) These Charge Codes will be identified by use of digits 8, 9, & 10.

b) The existing arrangements shall continue to apply to locally agreed Charge Codes because there is the potential for two different items of equipment to have the same Charge Code in different DNO areas with different circuit watts; however the same Meter Administrator could be calculating the consumption for both items. In these circumstance the locally agreed circuit watts must match the nominal watts, so that the consumption calculation will be the same for both items of equipment.

The proposed changes to the OID are shown as an appendix to this paper. Note that not all of 2.3.3 is shown, only the paragraphs where changes are proposed.

Note that in addition to amending para. 4.1. to allow for national miscellaneous charge codes to be issued to one decimal place, the opportunity has been taken to confirm that Generic LED lighting codes cannot be issued to one decimal place.

4. Recommendation

The UMSUG is invited to;

- Review the suggested changes to the Miscellaneous Charge Code definitions in the OID
- Include in the next update of the OID.

Nigel Birchley

8th May 2019

Appendix – Changes to Operational Information Document

2.3.3 Miscellaneous equipment

Miscellaneous equipment covers all other equipment not defined in either the lamps or traffic signals sections above. For this equipment the nominal Watt values are set to match the circuit watts, except in the case of "nationally agreed" codes where the circuit watts value is less than 10W. For circuit watt values of less than 10W, digits 8, 9, & 10 are used to uniquely identify that equipment and different equipment with the same nominal watts. ~~This allows for any local Code derived for equipment that may match a national Charge Code will provide the same energy calculation. Further guidance on local versus national Charge Codes is provided below.~~

Issuing of local or national Miscellaneous Charge Codes

UMSOs may issue Miscellaneous Charge Codes without having them published in the BSCCo Charge Code Spreadsheet where the equipment is to be used solely within the UMSO's area. ~~For clarity, 'nationally' means in GSP Groups controlled by more than one UMSO.~~ Where the Apparatus is intended for use solely within a single UMSO's GSP Group(s) an application to BSCCo is not required. The circuit Watt values for local Charge Codes are set to match the nominal watts and must be rounded to the nearest watts value even if that value is less than 10W. This allows for any local Code derived for equipment that may match a national Charge Code to provide the same energy calculation.

For clarity, "nationally agreed" code means a Charge Code for use in GSP Groups controlled by more than one UMSO.

The structure of the code is:

Digits	Description
1, 2 and 3	Digit 1 is always 8. Digits 2 and 3 represent the type of Equipment, see below table.
4, 5, 6 and 7	The Nominal watts (usually but not always the same as Circuit watts)
8, 9 and 10	A numeric code that allows equipment with the same first seven digits of the Charge Code but with different circuit watts or manufacturer to be uniquely identified. ~~Same as for traffic signals~~
11, 12 and 13	Always 100

Definition of digits 4, 5, 6, and 7:

For miscellaneous equipment, the nominal Watts will always equal the circuit watts, ~~except in the case of national codes where the circuit watts are less than 10W.~~except in the case of "nationally agreed" codes where the circuit watts are less than 10W.

Definition of digits 8, 9 and 10

A numeric code that allows equipment with the same first seven digits of the Charge Code, but with different ~~full~~ circuit watts or a different manufacturer to be uniquely identified

Definition of digits 11, 12 and 13

The last three digits for these codes will always be '100'. Where the miscellaneous equipment has dimming functionality the energy saved from dimming will be accounted for in the calculation of the circuit watts.

4.1. Equipment that is less than 10 Watts

For equipment that is rated at~~s~~ less than 10 Watts BSCCo will issue circuit watts to the nearest one decimal place, e.g. 2.125 = 2.1 Watts (1.d.p.). Please note that control equipment (Charge Codes beginning with '90' and above) will still always be given circuit watts to two decimal places.

Generic LED Lighting and Miscellaneous equipment Charge Codes are ~~is an~~ exception~~s~~.

Charge Codes for Generic LED Lighting fall within a range that will always be rounded to nearest watt.

Locally agreed Charge Codes for miscellaneous equipment issued by UMSOs for use solely within a single UMSO's GSP Group ~~and~~ will always be coded to the nearest Watt to allow for the same value for circuit watts to be used as the nominal Watts in construction of a miscellaneous Charge Code.

National Charge Codes for miscellaneous equipment may be issued by BSCCo to one decimal place as described above.