

Guidance on twin lamp sign lights in unmetered inventories

1. Introduction

The purpose of an unmetered inventory is to list all unmetered equipment that consumes electrical energy. Twin lamps are used to illuminate road signs and these should be correctly declared within an inventory. There are however a number of different charge codes and lamp quantities to declare depending on the various electrical configurations. It is important that the correct charge codes are used as incorrect inventory entries will result in inaccurate calculation of the energy consumption which leads to incorrect customer payments.

This guide describes the electricity industry requirements for accurate inventory entries for twin lamp sign lights. Examples of inventory submissions are shown to illustrate the requirements.

2. Electricity industry publications

2.1. BSCP 520

The energy consumption represented by the inventory will be calculated in accordance with the electricity settlements processes described in Balancing & Settlement Procedure 520 (BSCP520) published by Elexon¹.

This procedure specifies that where unmetered supplies are provided there is an obligation for an inventory to be maintained and supplied on a regular basis (section 1.1.1). The inventory must include the charge code and number of lamps and guidance on the use of charge codes is given in the Operational Information Document².

2.2. Operational Information Document

Amongst other aims the Operational Information Document (OID) aims to provide guidance on:

- what Charge Codes are (unique code representing unmetered equipment);
- the meaning of a Charge Code's structure;
- how to account for equipment in customer inventories.

The structure of the Charge Codes is given in section 2.2 of the OID. The twin lamps that are referred to in this document are given Charge Codes that begin with 31 & 32 (lamp definition MCF/U) and 33 & 34 (SL, PL-L, PL-S). The following notes appear in the OID relating to these lamps.

“Codes 31 and 32 are for the same lamps. These lamps are often mounted in a tray as twin lamps and used in traffic sign illumination. The difference is that code 31 is for a single lamp with its own control gear. Two lamps in a tray would therefore require a quantity of 2 in the number of lamps. However it is possible to mount 2 lamps in a tray in series with a single set of control gear.

See Note in 31 above, Code 32 is rated to cover two lamps and the single ballast. In this case the quantity to be entered in the number of lamps is only one.

See Note in 31 above, Codes 33 and 34 follow the same principle but for a compact type.”

¹ www.elexon.co.uk/csd/bscp520-unmetered-supplies-registered-in-smrs/

² www.elexon.co.uk/reference/technical-operations/unmetered-supplies/charge-codes-and-switch-regimes/

3. Twin Lamp configurations

This section elaborates upon this guidance and includes a further scenario that we have encountered during validation work with our customers. It seeks to explain to customers how to enter details of the lamps in the inventory ensuring that the energy consumption of the lamps is correctly calculated.

3.1. Two lamps each with its own ballast/control gear

Where each lamp has its own ballast/control gear then the sign light has two single circuits. The charge codes to be used to identify the lamps in the inventory are those prefixed 31 or 33 depending on the type of lamp. The number of lamps will be **two** and the circuit watt rating will cover both the lamp and its associated gear.

3.2. Two lamps connected in series with a single ballast/control gear

Where two lamps are connected in series with a single ballast/control gear then the sign light has a twin lamp circuit. The charge codes to be used to identify the lamps in the inventory are those prefixed 32 or 34 depending on the type of lamp. The number of lamps will be **one** and the circuit watt rating will cover both lamps and its single associated gear. Entering a quantity of two lamps **is wrong** as it will result in an over calculation of the energy consumption.

3.3. Two lamps being switched to extend operating life

There is also a configuration where two lamps are installed but only one is lit at any time, either by alternate operation or sequential operation (e.g. the second lamp being lit after the first lamp fails). For this arrangement the charge codes to be used are prefixed 31 or 33, and the quantity of lamps to be entered is **one**. As in 3.2 above, entering a quantity of two lamps will result in an over calculation of the energy consumption.

4. Inventory Examples in Standard Inventory Format

Examples of entries within an Unmetered Supplies Inventory are given for each of the three configurations in section 3. The format of the inventory used in these examples complies with the standard inventory format shown in section 8 of the OID.

4.1. Two lamps each with its own ballast/control gear

Road Reference	Town Name	Road Name	Location	Unit Type	Unit Identity	CMS Unit Reference	Charge Code	No. of items	Switch Regime	No. of controls	Control Charge Code	Easting	Northing	Exit Point	Distributor	Sub-Meter
12345678	Anytown	High Street	O/S 57	S	22		3100081000100	2	821	1	9400011000100	123456	654321	Y	99ABCD	WXYZ11

4.2. Two lamps connected in series with a single ballast/control gear

Road Reference	Town Name	Road Name	Location	Unit Type	Unit Identity	CMS Unit Reference	Charge Code	No. of items	Switch Regime	No. of controls	Control Charge Code	Easting	Northing	Exit Point	Distributor	Sub-Meter
12345678	Anytown	High Street	O/S 57	S	22		3200081000100	1	821	1	9400011000100	123456	654321	Y	99ABCD	WXYZ11

4.3. Two lamps being switched to extend operating life

Road Reference	Town Name	Road Name	Location	Unit Type	Unit Identity	CMS Unit Reference	Charge Code	No. of items	Switch Regime	No. of controls	Control Charge Code	Easting	Northing	Exit Point	Distributor	Sub-Meter
12345678	Anytown	High Street	O/S 57	S	22		3100081000100	1	821	1	9400011000100	123456	654321	Y	99ABCD	WXYZ11

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