Guidance on preparing a Traffic Signal Inventory

To document advice on preparation of an inventory of unmetered traffic signal installations in a format suitable for submission to the Unmetered Supplies Operator (UMSO) of a Distribution Network Operator

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1. Introduction

Power Data Associates is the leading Meter Administrator. Through our operations we receive information about unmetered equipment that has a range of quality. This guide has been prepared to assist traffic signal staff to prepare an accurate inventory.

The purpose of an inventory is to list all equipment in a Traffic Signal Installation that consumes electrical energy. Traffic Signal Inventories are often the most complex inventories to prepare. It is important that an accurate inventory is maintained as the inventory will determine the unmetered energy charges for the customer. The inventory should be regularly updated to reflect changes to the installed equipment. Replacement installations often use energy saving equipment such as LED aspects that have lower watt ratings resulting in lower electricity consumption. It is therefore beneficial to update the inventory regularly to ensure that the benefits of the new equipment are seen in the energy bill at the earliest opportunity.

In some parts of the country some but not all traffic signal installations have been metered, only equipment connected to an *unmetered* supply should be included in the unmetered inventory submitted to the Unmetered Supplies Operator (UMSO).

The unmetered traffic signal equipment may be included on the same account (MPAN) as the unmetered street lighting equipment, or it may be on its own account. Metered traffic equipment will appear on their own individual energy accounts (an MPAN for each junction/crossing).

This guide describes the electricity industry requirements of an inventory, concentrating upon how those requirements relate to Traffic Signal Installations. Two examples of inventory submissions for a traffic signal installation are shown to illustrate the requirements. We have also identified common issues with inventories that can cause errors in the energy calculations.

2. Electricity industry arrangements

2.1. BSCP 520, Unmetered Supplies Registered in SMRS

The energy consumption represented by the inventory will be calculated in accordance with the electricity settlements processes described in Balancing & Settlement Procedure 520 (BSCP520) Unmetered Supplies Registered in SMRS, published by Elexon[1].

This procedure specifies that where unmetered supplies are provided there is an obligation for an inventory to be maintained and supplied to the Distribution Network Operator (DNO) on a regular basis (section 1.1.1). The DNO team responsible is the UMSO who receives and agrees the accuracy of the inventory with the customer.

These obligations ensure that the energy consumed by unmetered supplies is accurately calculated and avoids either over or under payment of energy charges.

2.2. Operational Information Document

The Operational Information Document (OID) is published by Elexon[2] as a supplement to BSCP520 and contains more specific details with regard to the structure of the Charge Codes and Switch Regimes for traffic signal equipment in sections 2.3.2, 4.2 and 7 of the OID.

The Charge Codes and Switch Regimes are used to represent the installed traffic signal equipment in an inventory. They are respectively given watts and burning hours values that are used in the calculation of units of electricity consumption. Units of electricity are measured in kWh being the product of watts and hours.

[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/

2.2.1. Charge Codes

Every item of traffic signal equipment is given a Charge Code to identify the equipment in the traffic signal inventory submitted to the UMSO, and also to identify the circuit watts to be used in the energy calculations. It is only necessary to submit the Charge Code for the equipment in an inventory, not a description of the equipment.

All traffic signal equipment has a charge code that begins with "79", these first two digits identify it as traffic signal equipment as opposed to street lighting or other unmetered equipment.

The Charge Code is 13 digits long and should be submitted as a continuous string in the inventory. The format is:

- Digits 1 & 2 = 79 (traffic signal)
- Digits 3 & 4 = two digits that identify the type of equipment, e.g. 01 for non-dimming incandescent (halogen) RAG vehicle aspect, 02 for dimming incandescent (halogen) RAG vehicle aspect. The full list is in section 2.3.2 of the OID.
- Digits 5, 6 & 7 = the nominal watts of the equipment. A controller that uses 50 watts continuously will be shown as 050. Similarly, a 50 watt incandescent aspect switching on and off will also be shown as 050, but these watts will not be used in the energy calculations, the circuit watts from Elexon's charge code spreadsheet will be used. See para 2.3.2 below for a description of circuit watts and operating cycles.
- Digits 8, 9 & 10 = these three digits are used to differentiate between equipment that has the same nominal watts for the same type of equipment, but a different manufacturer or circuit watts.
- Digits 11, 12 & 13 = these are always "100" as they are not used for traffic signal equipment only for street lighting.

A full list of the Charge codes can be found on Elexon's website[3], but as an example and based on the above, the Charge Code for a generic 50 watt incandescent (halogen) lamp in a non-dimming RAG vehicle aspect is given a Charge Code of 7901050000100.

2.2.2. Switch Regimes

A Switch Regime is a three digit code that, in the case of traffic signal equipment, indicates whether the equipment operates at full circuit watts continuously, operates for only part of the day, or operates at different circuit watts at night, i.e. dims. Dimming is usually controlled by a Photo Electric Control Unit (PECU) or a solar time switch and each of the different controls has a different switch regime, e.g. a 70/35 Electronic PECU has a switch regime of 821, continuous undimming equipment uses 001. A full list of the switching lux levels and associated switch regimes can be found on Elexon's website[4].

2.3. Energy Calculations

The energy consumption of traffic signals is calculated by multiplying the circuit watts (denoted by the charge code) of the equipment by the operational hours (denoted by the switch regime) of the equipment. This calculation is carried out by a Meter Administrator if the energy is purchased half hourly or by the UMSO if the energy is purchased non-half hourly[5].

2.3.1. Continuously operating equipment

Continuous equipment operates at the same circuit watts 24 hours/day every day, such as the traffic signal controller or a modem. The energy calculation is relatively simple as a multiplication of watts x hours x the number of items of equipment to give a kWh figure, either

[3] www.elexon.co.uk/reference/technical-operations/unmetered-supplies/charge-codes-and-switch-regimes/
[4] www.elexon.co.uk/reference/technical-operations/unmetered-supplies/charge-codes-and-switch-regimes/
[5] If you purchase energy on a non-half hourly basis, we suggest you discuss with us the advantages of moving to half hourly trading

on a half hourly basis or an annual figure if the energy is purchased on a non-half hourly basis. Equipment such as this is given a Switch Regime of 001 indicating that the equipment operates continuously at the same load 24 hours per day.

There are also Switch Regimes that can be used if the Traffic Signals are operated only at peak periods. For example, a 'part time' traffic signal installation at a roundabout junction, which operates only during Mon-Fri rush hour times.

2.3.2. Circuit Watt Adjustment for Operating Cycles

Some traffic signal equipment uses energy intermittently during the traffic signal operational cycle, e.g. RAG vehicle aspects, push button units, etc. Where equipment only consumes energy during part of the cycle, the circuit watts are reduced to reflect this. For example, a 40 watt lamp in a near side push button unit is deemed to be only lit for 20% of the day, the circuit watts are therefore reduced to 8 watts continuously in the energy calculation. A table of the percentages applied is given below and can also be seen at section 4.2 of the OID.

Equipment Description	Charge Code Prefixes	% Watts (Operating Times)
3 lamp RAG Vehicle Aspects	79 01, 79 02, 79 40, and 79 41	55% Red, 5% Amber, 45% Green. Average 35% per lamp
2 lamp RG Pedestrian Aspects	79 03, 79 04, 79 42, and 79 43	50% of each lamp for incandescent. 80% of Red, 20% Green for LED, Average 50% per lamp
Push Button Unit with "Wait/Red Signal only lit when pushed	79 04, 79 24, 79 38, and 79 39	20% of each lamp for incandescent. 80% for red and 20% of green for LED, average 20% per lamp
Push Button Unit or nearside aspect with one of Red/Green Signals permanently lit when pushed	79 54 and 79 55	50% of each lamp for incandescent. 80% for red and 20% of green for LED, average 50% per lamp
Filter Aspects (only lit for part of operating cycle)	79 27, 79 28, 79 44 and 79 55	20% of lamp
Continuous Green Aspects (lit permanently during operating cycle)	79 56, 79 57, 79 58 and 79 59	100 % of lamp
Pedestrian Countdown Timer (dimmed). This only operates during a "black out" period between the Red and Green pedestrian signals	79 60	100% of standby load only. (although the load increases during the countdown display, this is offset by the reduction in the red/green operating cycle

A 50 watt incandescent lamp in a RAG aspect head will be rated at 18 watts singly, which is a total of 54 watts for the continuous load of the three aspects. The additional 4 watts allows for the short period when the red and amber are lit together. The same 50 watt lamp will have a different rating in a pedestrian aspect (25 watts per lamp) assuming one or the other is lit all the time.

2.3.3. Night Time Dimming

Where dimming of the traffic signals is taking place to avoid glare after dark, a switch regime is required to indicate the switching times of the changes from bright to dim and dim to bright.

Switching is most often achieved using a PECU that triggers the dimming at dusk when the PECU switches on and back to bright at dawn when it switches off. PECUs have different switching Lux Levels, a list of the switching levels and associated switch regimes can be found on Elexon's website[6].

When calculating the energy consumption for dimming equipment the daily switching times of the type of PECU associated with the traffic signal equipment are used. The switch regime determines the hours at which the equipment operated at full circuit watts and the hours when dim circuit watts applied. The dimmed circuit watts for each Charge Code can be seen in Elexon's spreadsheet.

These Switch Regimes are the same as those used for street lighting where lower lux levels are now being used to reduce the lighting hours and consequently energy consumption.

We have visibility of the different PECUs used by our customers for traffic signal installations. There is a very wide variation across our customer base, as shown on the right.

- 411 Thermal PEC 55/110
- 421 Thermal PEC 70/140
- 431 Thermal PEC 100/200
- 621 Hybrid PEC 70/35
- 807 Electronic PEC 35/35
- 808 Electronic PEC 35/18
- 811 Electronic PEC 55/28
- 821 Electronic PEC 70/35
- 824 Electronic PEC 70/140
- 831 Electronic PEC 100/50

This variation might mean that the quoted lux levels are arbitrary values, perhaps derived from the lighting inventory for the same highway authority.

Higher lux cells mean that the traffic signals are dimming for longer (meaning lower annual energy use), whereas the lower lux cells switch to bright earlier in the morning and dim later in the evening.

Energy consumption is probably not the key driver when deciding on the lux levels to use, safety is the prime consideration ensuring they are bright enough to be seen at dawn and dusk, whilst not dazzling drivers during the night.

We are not aware if there is any research or guidance into the appropriate lux levels for traffic signal installations.

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

3. Common Inventory Issues

As the leading Meter Administrator, we have sight of many of our customers' traffic signal inventories and we are aware that many of these are poor quality as well as very old, meaning that many authorities could be over (or under) accounting for their energy.

We can assist by carrying out a review of your traffic signal inventory to ensure that the inventory includes all the installed equipment with the appropriate charge codes to provide an accurate representation of your energy consumption. Some of the common inventory issues are listed below.

3.1. LED equipment

Across our customers there is a considerable variation of incandescent (halogen) and LED traffic signal aspects. Some highway authorities' report all their installations are incandescent, others that all are LED. Most authorities have some of each.

- Nationally some 59% of the installations are reported as LED vehicle aspects. It is suspected that this figure should be higher.
- Nationally some 39% of the installations are reported as LED pedestrian aspects. It is suspected that this figure should be higher.
- Nationally some 76% of the installations are reported as LED wait/push button unit. It could be that this figure is higher because of near side R/G LED units replacing far side incandescent aspects.

3.2. Age of inventories

Within our customer base we are aware that some of the traffic signal inventories have not been updated for many years, some for over 5 years. Whilst the traffic signal equipment may not be changing each month, an ideal management framework might well expect the inventory to be updated at least several times a year dependent on the level of change.

Any new traffic signal controlled junctions, new roads/development or energy improvements are only included in the energy calculation *after* a new inventory is provided to the DNO[3] and Meter Administrator.

Unless the inventory is updated identifying a change from incandescent to LED aspects the energy consumption will continue to be calculated based on the higher wattage incandescent equipment. Without the energy saving the cost benefit of the investment will be not actually be recouped through the energy bill.

3.3. Dimmed Signals

In the inventories we see, there is a considerable variation between dimmed and non-dimmed traffic signal installations. Some highway authority's report all their installations are dimmed others that all are undimmed. Most authorities have some of each.

Nationally some 91% of the installations are reported as dimmed. It could be that this figure should be nearer 100%. There is a saving of roughly 15% on energy bills by correctly identifying dimming equipment in the inventory

3.4. Number of aspects

An analysis of our customers' inventories has revealed a wide variation in the number of vehicles aspects per traffic signal controller. On average, this is 24 aspects (say 8 heads) per controller, but varies from zero, which is not logical to eighty within a single highway authority. A figure above 20 is probably the more correct outcome.

This disparity probably highlights the confusion across the industry between vehicle ‘aspects’ vs. vehicle ‘heads’ and therefore the quantity to be reported within an inventory. So, some further explanation of the operating cycles and the energy calculation follows

Under the Elexon coding a 50 watt incandescent aspect is given a circuit watt rating for energy consumption purposes of 18 watts. This is because each aspect in a 3 three aspect signal head will normally have one aspect lit at any time, so the continuous power is one third of the rated power. There is a slight adjustment to account for a short period the red & amber aspect are lit together.

A similar approach applies to R/G far-side men where a quantity of 2 is reported in the inventory and each of the aspects is rated at 50% of the lamp’s actual circuit watts, allowing for the operating cycle.

Many asset databases identify RAG head as a single item, but they need to be reported in the energy inventory as 3 aspects (lamps). Many asset databases do not hold the charge code and/or switch regime that applies to the equipment, these being added to the report manually. To reduce these potential errors the inventory report should be generated from the database with these important data items already included for each asset and the correct quantities reported.

4. Inventory examples

The following two examples show photographs of two straightforward traffic signal installations. A description of the equipment installed is given, followed by details of how the equipment would be presented in an inventory.

When preparing an inventory, it is important to identify actual equipment in use and circuit watt ratings, particularly if energy efficient alternatives have been installed such as LED aspects. The first example is of a pedestrian crossing with LED Aspects and the second is a T-Junction with filter aspects using generic incandescent (halogen) lamp charge codes. There are photographs of the installations, followed by a descriptive list of the equipment installed. The inventory entries for the two installations are shown at the end at the end of the document in worksheet format for ease of viewing.

Please note that these examples only list the equipment visible in the photographs, other less obvious equipment such as monitoring units, communications, detector power packs, etc. in the controller cabinet must also be added to the inventory.

4.1. Pedestrian Crossing on Amber Avenue, Anytown

The installation uses LED aspects and dims at night. Six of the eight posts have a single 3 lamp RAG vehicle aspect, a total for the site of 18 x 12 watt LED aspects. The Charge Code for these aspects is 7941012002100.

There are 8 posts with pedestrian button units of two different types. Four of the PBUs are the type which are only lit when the button is pressed (dimmed at night). The Charge Code for these units is 7939009003100. The other four units have a permanently lit (again dimmed) LED signal (Red/Green) with a charge code of 7955013000100.

There are eight pedestrian detectors in total, four kerbside with charge code 7952003000100 and four on-crossing with charge code 7952002000100.

Finally, the traffic signal controller, which has a 20 watt circuit rating, and the photo-electric control unit (PECU) need to be listed in the inventory. The charge code for the 20 watt traffic signal controller is 7906020000100. The electronic PECU switches on at 70 lux, and off at 35 lux actuating the dimming at night. See the earlier explanations against Fields 10, 11 & 12 for more detail about this. The entries in the inventory for this installation will be:

Charge Code	No of Items	Switch Regime	No of Controls	Control Charge Code
7941012002100	18	821	1	9400010000100
7939009003100	4	821		
7955013000100	4	821		
7952003000100	4	001		
7952002000100	4	001		
7906020000100	1	001		

4.2. T-Junction at Red Road and Green Lane, Anytown

This view of the installation from Green Lane shows two 3 lamp RAG vehicle aspects (7902050000100 x 6 aspects) and 2 green filter aspects (7928050000100 x 2 aspects). In addition, there is a vehicle detector (7907007000100) on the nearer of the two posts.

Looking south on Red Road, there are three 3 lamp RAG vehicle aspects (7902050000100 x 9 aspects) and there is a vehicle detector (7907007000100) on the nearer of the three posts.

Finally looking north on Red Road, two 3 lamp RAG vehicle aspects (7902050000100 x 6 aspects) are visible and one green filter aspect, that is only lit for part of the green cycle in this direction (7928050000100). The third vehicle aspect was picked up in the view from Green Lane. Again, there is a vehicle detector (7907007000100) on the nearer of the two posts.

Not shown in the photos is the 70 watt traffic signal controller (7906070000100) or the Photo Electric Control Unit (9400010000100).

The totalised entries in the inventory for all three views of this installation will be:

Charge Code	No of Items	Switch Regime	No of Controls	Control Charge Code
7902050000100	21	821	1	9400010000100
7928050000100	3	821		
7907007000100	3	001		
7906070000100	1	001		

5. Inventory requirements

A standard file format for a detailed inventory is defined in the Elexon OID. This standard format is accepted by all UMSOs.

The standard inventory format is shown in Section 8 of the OID, with accompanying comments and explanations. The following notes provide more detail about each field for a traffic signal inventory and should be read in conjunction with the OID guidance.

The standard format will be acceptable to all UMSOs, but there is provision for an UMSO to accept an inventory in an alternative format provided certain minimum information is provided. Changing from the standard format increases the risk of error and/or misunderstanding. Potential deviations from the standard format are highlighted in these notes. In all cases it is advisable to talk to your UMSO first before proceeding with compiling the inventory.

The inventory would normally be sent to the UMSO either as an Excel spread sheet, fixed format text file or as a comma separated text file.

5.1. Standard Inventory Format

- **Field 1 Road Reference** – The Elexon notes suggest the "National Street Gazetteer Unique Street Reference Number". As an alternative the SCN (Site Code Number), or equivalent, of the installation could be used or other identity reference. See also Unit Identity below.
- **Field 2 Town Name** – Self-explanatory but could be omitted by agreement if the inventory relates to a single city/town.
- **Field 3 Road Name** – Again self-explanatory. If the installation is at a junction, both road names could be incorporated, e.g. High Street/City Road.
- **Field 4 Location** – These first four fields are required to provide the UMSO with a location for the installation. In a street lighting inventory, the location of a street light within a street would be specified e.g. "outside house no. 4". If suitable location text does not exist within your database, the UMSO might agree that the first 3 fields are sufficient.
- **Field 5 Unit Type** – This will always be T for traffic signal. It is also possible that the UMSO will agree that this field can be omitted as it is more usually used to identify the different types of equipment included within a combined Street Lighting, Signs, and Signals inventory.
- **Field 6 Unit Identity** – Ideally the SCN or equivalent should appear here. Some customers list their equipment by post number, the post number could be used if the SCN has been used for Field 1.
- **Field 7 CMS Unit Reference** – Leave blank, this is only applicable to street lighting where a Central Management System is in use.
- **Field 8 Charge Code** – As described earlier in para 2.2.1 this field identifies the type of equipment installed. There will be multiple charge codes for an installation and a separate line in the inventory for each charge code at the site.

  Many asset databases do not hold the Charge Code that applies to the equipment, these being added to the report manually. To reduce the potential errors in energy calculation that use of an incorrect Charge Code could cause, the inventory report should be generated from the database with this important data item already included for each asset.

  Although formatted in Elexon's Charge Code spreadsheet with spaces between the various elements, the Charge Code should be submitted in the inventory as a continuous string with no spaces.
- **Field 9 No. of items** – As described earlier this often causes confusion because the number of items required in an inventory is the number of lamps, but the asset database probably holds a RAG vehicle aspect (or head) as a single item. In the inventory report a vehicle aspect will need to have the number of items entered as 3 aspects, a pedestrian aspect will have 2. Filter lamps have their own charge code and will be entered singly, despite being

mounted alongside a 3 lamp RAG aspect. Ideally the inventory report from the asset database needs to be generated with the appropriate number of items entered, but these could be manually adjusted bearing in mind the potential for error.

- **Field 10 Switch Regime** – Unless the equipment dims or is only lit for part of the day, this will always be 001 which is the switch regime code for a supply taken continuously. Where the aspects dim, the switch regime will correspond to the type of Photo Electric Control Unit (or Time Switch) installed. For example, if a 70/35 lux electronic PECU is in use to switch to dim at dusk, the switch regime will be 821. It is important that if an item dims, a dimming charge code is used alongside the corresponding dusk to dawn switch regime. It is possible that the energy calculations will not be adjusted for dimming if the correct combination is not submitted to the UMSO.
- **Field 11 No. of controls** – A control in this respect is the PECU described above. Normally there is one per site and there are three ways to record it. It can be entered on the same line of the inventory as an item of equipment that is being dimmed (but only one per site or junction) and hence has a corresponding dusk to dawn switch regime. Alternatively, an additional piece of equipment called a control host can be entered into your inventory with a charge code of 8150000000000 that has a zero watt rating and the control charge code and no of controls can be entered on this line. Finally, if your database does not lend itself to either of these options, talk to your UMSO as it may be possible to add this as a separate item of equipment with a count equal to all the sites with dimming equipment.
- **Field 12 Control Charge Code** – This identifies the circuit watt rating of the PECU in use as described in Field 11. (It is not the Traffic Signal Controller itself which will have a charge code beginning 7906.) A list of the codes for can be found in the Charge Code spreadsheet towards the end as they all begin with “9”. It is important that the Control Charge Code matches the Switch Regime. For example, if a Thermal PECU is in use against switch regime 411, the charge code will be 9200030000100.
- **Fields 13 and 14 Grid References** – The grid reference of the site (controller). If not available check with your UMSO as it is possible it can be omitted.
- **Field 15 Exit Point** - This indicates the connection to the distribution network. Usually it will be “Y” for yes against the controller, and “N” for all other equipment. In theory the UMSO can then count the number of connections represented by the inventory. It is an optional field and in practice the UMSO may well ignore this data, so check as you can probably leave it blank.
- **Field 16 Distributor** – This field is used to denote the Distribution Network Operator (DNO) or Independent Distribution Network Operator (IDNO) providing the electricity network connection for the installation. It is an optional field but is required when the inventory contains details of equipment connected to the networks of more than one DNO or IDNO. This arrangement is known as a “Combined” Inventory and the Independent Network Association’s Guide to Combining Inventories[7] provides details of the requirements for a combined inventory.
- **Field 17 Sub-Meter** – A Sub-Meter can be used with a half hourly inventory that includes more than one type of equipment e.g. Street Lighting and Traffic Signals. It enables the Equivalent Meter to calculate a total consumption for the half hourly MPAN for billing purposes and to report to the Customer a split of that total between the types of equipment for budget purposes. If your authority’s electricity is currently purchased through separate MPANs for each type of unmetered equipment we suggest you talk to us about the advantages of a single MPAN using sub-meters.

[7] https://ina.org.uk/wp-content/uploads/2020/10/combining-inventory-guidance-for-ums-customers-june-2019.pdf

5.2. Example Inventory in Standard Inventory Format

The inventory entries for both of the two example installations are shown in full below. The pedestrian crossing is shown first.

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	Amber Avenue	Footpath to shops	T	SCN0001		7941012002100	18	821	1	9400010000100	123456	654321	N	99IDNO	TRAFF01
12345678	Anytown	Amber Avenue	Footpath to shops	T	SCN0001		7939009003100	4	821			123456	654321	N	99IDNO	TRAFF01
12345678	Anytown	Amber Avenue	Footpath to shops	T	SCN0001		7955013000100	4	821			123456	654321	N	99IDNO	TRAFF01
12345678	Anytown	Amber Avenue	Footpath to shops	T	SCN0001		7952003000100	4	001			123456	654321	Y	99IDNO	TRAFF01
12345678	Anytown	Amber Avenue	Footpath to shops	T	SCN0001		7952002000100	4	001			123456	654321	N	99IDNO	TRAFF01
12345678	Anytown	Amber Avenue	Footpath to shops	T	SCN0001		7906020000100	1	001			123456	654321	N	99IDNO	TRAFF01
87654321	Anytown	Red Road	Jnc Green Lane	T	SCN0002		7902050000100	21	821	1	9400010000100	654321	123456	N	66ADNO	TRAFF01
87654321	Anytown	Red Road	Jnc Green Lane	T	SCN0002		7928050000100	3	821			654321	123456	N	66ADNO	TRAFF01
87654321	Anytown	Red Road	Jnc Green Lane	T	SCN0002		7907007000100	3	001			654321	123456	N	66ADNO	TRAFF01
87654321	Anytown	Red Road	Jnc Green Lane	T	SCN0002		7906070000100	1	001			654321	123456	Y	66ADNO	TRAFF01

This view is in spread sheet format. A spread sheet, or a text file would be prepared either as a fixed width format file or with fields separated by characters such as commas or tabs.

If it is intended to incorporate the traffic signals into an existing inventory for street lighting where an alternative format has already been agreed with the UMSO, it should be possible to use these notes to prepare an inventory in that alternative format.