Unmetered Supplies Data Service Specification

**1.0 Background**

1.1 The Employer is National Highways the government company charged with operating, maintaining and improving England’s motorways and major A roads, including modernising and maintaining the highways. We also manage - and help prevent - incidents on England’s motorways through our Traffic Officer Service. The Employer manages around 4,300 miles of carriageway and is made up of motorways and trunk roads.

1.2 National Highways (hereafter referred to as the *Employer*) procures un-metered electrical energy from bulk electricity suppliers, for its road lighting and lit traffic signs on Motorways and Trunk Roads in England.

1.3 As these electricity supplies are unmetered and traded Half Hourly (HH), the Service Information is required to conform to an industry procedure BSCP520 (Balancing and Settlement Code Procedure) and a Meter Administrator (MA), must be appointed.

1.4 In June 2023 all customers using Unmetered Supply (UMS) will be required to move to Market Wide HH Settlement. National Highways historically has traded HH electricity so this should have negligible impact, the meter administrator would now be known as the Unmetered Supplies Data Service.

1.5 The *Service* covers all of the DNO (Distribution Network Operator) Areas in England and some sections of Scotland and Wales: [www.ofgem.gov.uk/electricity/distribution-networks/gb-electricity-distribution-network](http://www.ofgem.gov.uk/electricity/distribution-networks/gb-electricity-distribution-network).

## 2 Overall objectives

2.1 This Service Information is based on [BSCP520](chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https:/www.mhhsprogramme.co.uk/uploads/0ef2b63d-fbc9-44b2-ab15-16c5a92ecdb1/MHHS-DEL979_BSCP700_v0.5_MHHS-DS.pdf), but incorporates the necessary requirements of the *Employer* to enable the S*ervice* to be provided on a National basis.

2.2 The general requirements (including the role, responsibilities and functions of the appointed *Contractor*) are as defined in BSC Procedure BSCP520 and later BSCP700.

2.3 The *Employer* currently uses PECU Arrays (Photo Electric Control Unit) and Central Management Systems (CMS) in the process for obtaining HH (Half Hourly) consumption data and will in the future wish to take advantage of potential cost savings associated with ‘Dimming’ and/or ‘half-night operation’. Therefore, the Equivalent Meter (EM) used will need to be able to accommodate these factors so it will be necessary for the *Contractor* to be Central Management System (CMS) approved.

**3 Detailed description scope of service**

3.1 National Highways responsibility for UMS as per BSC200

3.2 The objectives of the Contractors Role are (as shown in BSCP520 Clause 1.2.4). In summary, the Meter Administrator is responsible for the following:-

* receiving a copy of the agreed Summary Inventory and/or CMS Control File (as appropriate) of the UMS Apparatus for an Metering System Identifier (MSID), together with agreed updates, from the unmetered Supply Operator (UMSO);
* validating and processing the Summary Inventory and/or CMS Control File (as appropriate) information into the EM, generating a D0389 – UMS Response flow to the UMSO and forwarding an inventory report extracted from the EM to the Customer;
* using the latitude and longitude information, agreed with the UMSO, for the MSID appropriate to the installed Apparatus;
* validating all Charge Codes and Switch Regimes against the Operational Information Document (OID) and associated spreadsheets;
* ensuring metered data from the equivalent Meter (EM) is available to the Half Hourly Data collector (HHDC) to meet the Volume Allocation Run timescales required by the Supplier;
* indicating to the HHDC when data is not available or missing; and
* retaining Settlement data in accordance with this BSCP and PSL100 ‘Non Functional Requirements for Licensed Distribution System Operators and Party Agents’.

3.3 Recording of Data

The MA shall record sufficient details received from the Supplier of its appointment in respect of a MSID to enable the MA to perform its functions as MA and operate the Equivalent Meter permitted for use within the GSP group by the LDSO. These details shall include:

* Settlement Days for which the MA is appointed by the  the Supplier;
* the relevant MSID;
* the Identifier for the HHDC;
* the UMSO providing the Unmetered Supply Certificate for that Metering System;
  + the geographical position defined by the UMSO for that MSID or, where these are defined by the UMSO, the geographical positions for related Sub-Meters of the Summary Inventory for that MSID;
* the indicator defined by the UMSO as to whether a PECU array is required for that MSID or for related Sub-Meters of the Summary Inventory where these Sub-Meters are agreed with the UMSO; and
* the energisation status associated with the MSID in Supplier Meter Registration Service;
* the indicator defined by the UMSO as to whether a Central Management System is required for that MSID or for related Sub-Meters of the Summary Inventory and/or CMS Control File (as appropriate) where these Sub-Meters are agreed with the UMSO. Sub-Meters for CMS equipment are denoted in lower case, non-CMS are denoted in upper case. Each Sub-Meter must be unique within an MSID.

3.4 The MA shall record and use such Market Domain Data (MDD) as is considered appropriate by the Panel (having regard to the MA’s functions) and shall, in particular, use only MDD for those items in relation to which there is a MDD entry or other information provided by the UMSO where such information does not conflict with MDD.

3.5 Maintaining Audit trails

3.5.1MAs shall ensure that audit trails are maintained between:

* + Equivalent Meter failure reports or energisation/de-energisation requests, and any subsequent actions taken; and
  + data requested and data sent (or received) in relation to transfers of data between outgoing and incoming MAs.

#### 3.6 Resolution of Queries and Disputes

3.6.1 The MA shall respond to queries raised by the Supplier, UMSO, the Supplier Volume Allocation Agent, the HHDC, the BSC Auditor and the LDSO.

#### 3.6.2 In the event of any dispute as to whether an item of MDD is appropriate or, as the case may be, affects the accuracy of Settlement, the decision of the Panel shall be final.

#### 3.7 Recording Devices

3.7.1 The MA shall ensure that the import of electrical energy by every MSID to which it is appointed is accurately recorded by the correct use of an Equivalent Meter.

3.7.2 If requested by the LDSO, the MA shall provide details of reactive power as an output from the Equivalent Meter.

#### 3.8 Systems and Processes

3.8.1 The MA shall use systems and processes so approved in accordance with BSCP537 in the operation of Equivalent Meters. These systems and processes must also comply with all other applicable requirements set out in the Code and other relevant CSDs.

#### 3.9 Termination of Appointment of Meter Administrator

3.9.1 The MA shall prepare and maintain plans that will enable its Supplier’s obligations under the Code to continue to be met notwithstanding the expiry or termination of the MA’s appointment as the MA. The plans, which the MA undertakes to implement on any such expiry or termination, will include the immediate transfer of data and other information to an incoming MA appointed by the Supplier or to the Panel.

#### 3.10 Summary Inventories and CMS Control File

3.10.1 The MA shall record a history of the Summary Inventories and CMS Control Files and their effective from dates input to the Equivalent Meter.

3.10.2 Where the Summary Inventory or CMS Control File is not provided by the UMSO or is not relevant to a half hourly unmetered Measurement Class the MA shall request the UMSO to provide the correct information and inform the associated Supplier if it is not provided in time to allow data to be submitted for the Initial Settlement Run for any MSID to which the MA has been appointed.

### 3.11 The Contractor shall install and test EM software in accordance with the Employer’s requirements

### 3.11.1 For example:

* Set up load rating table.
* Set up time switch profiles.
* Set up time switch regimes.
* Set up Equivalent Metering System ID’s (or use existing, as appropriate) for each DNO Area by group supply point.
* Receive from the UMSO, a summary inventory for each DNO Area.
* Load Summary Inventory into EM.

3.12 Run EM software to determine half hourly kWh (Kilowatt Hour) and KVA (Kilovolt Amps) energy consumption data by Equivalent Meter.

* Establish the Employer’s maximum demand for use of system purposes.
* Update load rating tables
* Check for software updates, install and test
* Create back-up copies of operational systems and data.

## Monthly Responsibilities for Provision of Measurement Services

3.13.1 Ensure the HHDC can collect the metered data.

* Accept monthly updated summary inventory from the host DNO, summarised by Equivalent Meter or Sub Meter if more than one PECU Array is used per MSID.
* Load revised summary inventory into the EM. Send a print of the summary from the EM inventory to the Employer (or authorised representatives) and the UMSO.
* Use the EM to determine half hourly kWh (and KVA where required by the DNO) consumption data by MSID.
* Ensure information is retrieved from PECU Arrays to meet the required settlement run timescales as set out in BSCP520

## Ad-hoc Responsibilities for Provision of Measurement Services

### 3.14.1 The Contractor is required to carry out the following ongoing obligations:-

* Implement any revisions to the BSCP (including Appendices) when they are issued.
* The Contractor must notify the HHDC when metered data is incorrect or missing, so that estimated data can be provided in accordance with BSCP 520.
* Ensure that those persons that are permitted to have access pursuant to metered data have access to meter readings during normal working hours, which are 9am to 5pm, Monday to Friday, excluding Bank Holidays.
* Update load rating data tables when amendments to the BSCP 520 operational document are issued.
  1. General responsibilities for Central Management Systems
     1. Including but not limited to:
* Liaise with CMS providers on National Highways behalf to ensure accuracy within Lighting Inventory submissions to DNO’s
* Provide expertise where CMS data is incorrect for National Highways to action
* Provide expertise on best practice with CMS for energy reduction.
  1. General details for Photoelectric Cell Unit (PECU) Arrays and other control systems
* Ensure energy reporting where control systems are in use is in line with UMS regulations
* Advise on where there are inconsistencies or gaps within inventories relating to control systems
* Advise on means for National Highways to improve on this data with recommendations such as site surveys, installation of equipment amongst other items.

## 

* 1. Ad Hoc Responsibilities – National Highways Inventory Data Management

3.17.1 Contractor to provide expertise in unmetered supplies and the management of them across streetlighting and operational technology. Contractor to regularly attend meetings with National Highways

3.17.2 Contractor to attend regular meetings with National Highways and provide recommendations and solution which support improving data quality across unmetered inventories.

3.17.3 Contractor to advise and support on mapping meter and asset relationships

3.17.4 Contractor to provide recommendations on where National Highways can reduce consumption from UMS electricity.

3.17.5 Contractor to support and advise with any proposals for National Highways to migrate to new asset management system(s); including advising on requirements for accurate billing and settlement and data migration.

3.17.6 Contractor to support with any transitions from unmetered to metered supplies.

3.17.7 Contract to work with National Highways to develop and enhance management information on unmetered supplies.

3.17.8 Contractor to have adequate resource to perform data management and analysis tasks to ensure improvement on National Highways asset inventories, to have sufficient experience with streetlighting engineers to identify anomalies in with asset inventories and be able to utilise knowledge of streetlighting and unmetered supplies to provide recommendations for National Highways to submit accurate asset inventories to the UMSO’s.