Information for Meter Operators

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1. Introduction

UK Power Distribution (UKPD) is a licensed Independent Distribution Network Operator. Meter Point Administration Numbers (MPANs) for exit points of the UKPD distribution systems commence with the two digits 31.

The MOCOPA covers the installation, operation and maintenance of electrical metering equipment by MOCOPA operators and Distribution Businesses. It also covers safety and technical requirements relevant to meter operation and the interface between MOCOPA Operators and Distribution Businesses. It specifies the requirements for the mutual exchange of Information between MOCOPA operators and Distribution Businesses necessary to satisfy the safety and business needs of both parties and provides the means for this exchange via the MOCOPA web site.

Under MOCOPA Distributors have an obligation to make information available to all MOCOPA operators to carry out their metering work safely.

2. General arrangements

2.1 Requirements

All companies who wish to work on the UKPD distribution system shall comply with a minimum requirement. A Meter Operator should be:

- A member of the Association of Meter Operators
- signatory to the Meter Operators Code of Practise Agreement

The companies shall submit an authorisation for their personal as per the form provided in Appendix2.

2.2 Contacts and communication

A list of contacts, email addresses and telephone numbers for UKPD are given in Appendix 1 – Contact Details.

In accordance with the Meter Operator Code of Practice, Meter Operator companies are required to provide the following information:

- before the start of any work on the UKPD distribution systems.:
  - Copy of Meter Operator License,
  - Copy of Insurance Certificate, and
  - Contact name, address and telephone number of a responsible person, contacted at all reasonable times for the notification of accidents/incidents and the discussion and resolution of other safety matters.
- 5 working days of the installation of a new meter:
  - Full commissioning details as specified in the Code of Practice.

3. Operational and safety matters

3.1 Distribution safety

It is the responsibility of the meter operator to ensure that all work on or in the vicinity of electrical equipment undertaken by the meter operator is carried out in a safe and competent manner to a level complying with or exceeding the requirements of health & safety and electricity related legislation and, in

particular, relevant requirements of the Electricity Act 1989 (as amended), the Utilities Act 2000, Electricity At Work Regulations 1989 (as amended) and the Electricity Safety, Quality and Continuity Regulations 2002.

It is the responsibility of the meter operator to take note of distribution business information provided by UKPD and to circulate all relevant aspects to their operatives including, not exhaustively, such aspects as UKPD's emergency contact phone numbers, equipment risk assessments and notices of equipment defects and notifications of unsafe areas where special access arrangements through UKPD may apply.

Contact details for advisory support, in relation to distribution asset related matters only, are listed in appendix 1.

3.2 Access to UKPD distribution substations
Where access to UKPD substations is required , an access request shall be made to UKPD to the point of contact listed in Appendix 1.

3.3 Reporting of defects, incidents and dangerous occurrences
Urgent issues to report: Reporting of equipment owned by UKPD found to be defective, hazardous (or which might reasonably be believed may become hazardous) or presenting other operational and safety problems that is inherently dangerous and require immediate rectification, especially for safety reasons, should be reported immediately by the meter operative e.g. category A codes within the 'MOCOPA guide for service termination issue reporting'.

Non-urgent issues / information to report: E.g. category B and C codes within the 'MOCOPA guidance for service termination issue reporting' - situations in which the issue prevents the metering work being carried out or is service termination equipment information. These should be reported using the standard D0135 dataflow.

Incidents, accidents and dangerous occurrences: It is a requirement under relevant safety legislation to report incidents, accidents and dangerous occurrences to the relevant reporting authority and such incidents, accidents and dangerous occurrences that relate to UKPD's distribution systems must also be reported to UKPD at the earliest possible opportunity.

UK Power Distribution regularly issues Safety Bulletins. Any bulletins that impact MOCOPA operators will be forwarded to MOCOPA for publication on their web site so that they can be accessed by any MOCOPA Operators working on UK Power Distribution equipment and will be added to Appendix 4 as part of the annual review of this document.

The points of contact and telephone numbers for UKPD are given in Appendix 1.

3.4 Removal and replacement of cut-out fuses
Where the work to be done on behalf of the appointed electricity supplier, by their registered meter operator, requires the removal and subsequent replacement of the main supply cut-out fuse(s) then this may take place without reference to UKPD provided the meter operative is a member of the association of meter operators and suitable authorised to carry out the task.

Meter operatives removing or replacing main supply cut-out fuse(s) must:

- Be assessed and certified as competent by the meter operator;
- Be the appointed meter operator of the electricity supplier for the MPAN concerned;
- Be in receipt of formal work instructions from, or arising from, instructions from the above parties to undertake activity that necessitates the operation of the main supply cut-out fuse(s) of the property; and
- Re-seal all distribution service termination equipment in accordance with MOCOPA.
- Where substation access is required, UKPD will ensure a suitably authorised engineer will accompany the company on to the site. For that reason, UKPD shall be notified and an authorisation form

(Appendix 2) shall be submitted for every operative attending. The notification and completed form shall be sent to UKPD (Appendix 1) at least 10 working days prior to the works commencing.

- UKPD shall be notified of all fuse changes on any CT metered and Half Hourly supplies via the contact details in Appendix 1.

3.5 Operation of UKPD service termination switchgear/isolators

Whilst the majority of UKPD service terminations are cut-out fused, there are other types of service termination at low voltage, high voltage and extra-high voltage that have switchgear or isolators as the exit point means of energisation and de-energisation of the main current carrying electrical circuit to the customer's installation.

Where the meter operator is instructed to conduct works that require the de-energisation or re-energisation of a UKPD service termination, whose isolation device for the main current carrying electrical circuit is distributor locked switchgear or isolator; the meter operator should refer the request back to their supplier and not proceed with their works. The appointed electricity supplier/MOP shall contact UKPD prior to any de-energisation or energisation of service terminations with these types of isolation equipment.

3.6 Testing of customer electrical installations prior to connection or energisation

Where the work to be done by the meter operator, on behalf of the appointed electricity supplier, involves the connection, energisation, or re-energisation of customer's electrical installations the safety of the installation must be assured prior to such connection, energisation, or re-energisation as detailed in F, I, K, L & M of the MOCOPA principles (see Appendix 3).

Under regulation 25 of the Electricity Safety, Quality and Continuity Regulations 2002 (ESQC Regulations), UKPD does not give consent to make or alter connections of customer installations where there are reasonable grounds that the customer's installation does not comply with the British Standard Requirements and the ESQC Regulations themselves.

Accordingly, UKPD requires that all appointed electricity suppliers and all appointed meter operators ensure, given the nature of installation being connected, energised or re-energised, that the installation is safe to connect and complies with the British Standard Requirements[1] and the ESQC Regulations.

Where the meter operator is fitting an isolating switch and customer accessible PME terminal block on the installation side of the metering system, to enable a third party to later connect wires into the fitted isolator and customer accessible PME terminal block, these items form part of the electrical installation.

Accordingly, UKPD requires that the meter operator shall conduct such tests as are necessary and sufficient to ensure that the fitted isolator switch and customer accessible PME terminal block is safe to connect and complies with the British Standard Requirements and the ESQC Regulations. The meter operator shall retain records of such tests and results.

For the avoidance of doubt, where customers' installations at the time of requested connection comprise a very limited extent of electrical lines and plant that has been demonstrated through tests and certificates to comply with British Standard Requirements, then connection of the electrical installation should be made. For example, where a customer's initial installation comprises a double pole isolator with meter tails ready for connection to a metering system and a customer earth block with conductor ready for connection to a PME

[1] British Standard Requirements means the British Standard Requirements for Electrical Installations BS 7671 : [2018 IEE Wiring Regulations 18th Edition as incorporated in the Electricity Safety, Quality and Continuity Regulations 2002 by the Electricity Safety, Quality and Continuity (Amendment) Regulations 2009 (SI 2009/639).

terminal and the customer's installation complies with British Standard Requirements then connection should not be refused.

Following the meter operator's connection of a customer's electrical installation demonstrated to be compliant with the ESQC Regulations the liability for subsequent modifications to the customer's installation resides fully with the customer. It is the customer's responsibility to liaise with their appointed electricity supplier and UKPD if they plan to make changes to their electrical installation which are likely to affect, or exceed, the customer's previously agreed requirements of the distribution system or metering equipment. They must liaise with the relevant parties before any such material changes to their electrical installation are made.

4. Technical

4.1. Meter operator equipment attachment

The meter operator's meters and associated equipment must not obstruct or restrict access to the UKPD distribution equipment.

Other than metering and associated communications equipment, the meter operator must not fix any of their equipment upon UKPD's equipment or property, such as metering panels, without the prior written agreement of UKP.

It is the responsibility of individual meter operators and/or their contractors, to satisfy themselves as to the wiring arrangements at any particular location, to ascertain the nature of the connections at the site and act accordingly. UKPD does not accept any liability whatsoever for independent meter operators' actions on site and the meter operator and / or their contractors must bear entire responsibility in all respects.

4.2. Service termination equipment access

The meter operator shall not allow, nor do anything so as to allow, any third-party access to the UKPD equipment, including, not exhaustively service fuse cut-outs, service isolator switches, multi-way service distribution panels and any associated UKPD service termination equipment and conductors.

Where UKPD provides an earth terminal for the customer it shall be accessible to the customer or contractor to connect and allow ongoing access in order to carry out routine tests of the installation.

UKPD does not require the installation of double-pole isolating switches on the customer's side of the meter. However, the installation of them by meter operators is encouraged in order to better facilitate any future isolation of the customer's equipment for maintenance and testing purposes by the customer or contractor.

4.3. Communications links

Any equipment which is required to be installed by the meter operator for communications must be installed in a proper manner and not obstruct or restrict access to UKPD's equipment or the customer's installation.

UKPD's equipment or communications links, if present, should not be disconnected without permission. Any resultant costs incurred by UKPD from such unauthorised disconnections will be charged to the party responsible for the disconnection.

UKPD's communication links should not be used by a Meter Operator company without prior written agreement of UKPD; and where an existing communication link is not owned by UKPD, the meter operator should gain prior written agreement from the owner if utilisation of that communications link is desired.

Where a radio/wireless communication system needs to be fitted to a substation, the position is to be agreed with the owner of the substation prior to installation. The fitting of radio/wireless communication systems and associated cabling must be carried out with care to ensure that it does not impair the building structure or

weatherproofing or proper functioning of existing UKPD equipment or metering equipment in any way whatsoever.

4.4. Commissioning CT metering equipment

As per the requirements of BSC Code of Practice 4 and the guidance under BSC modification P283, for CT metering equipment installed after 6th November 2014, UKPD is responsible for commissioning CT metering equipment which it owns. Requests for commissioning documentation should be made using the contacts information in Appendix 1.

4.5 Connection of Metering

Typical meter connection arrangements for both LV & HV CT Operated Meters In Appendix 5 and 6 and, for anything else, on demand, as per contact shared in Appendix 1.

5. Commercial

5.1 Removed meters

Where a meter is being replaced by another any associated timing device, it should be removed and returned to the meter owner at no cost to UKPD.

5.2 Provision of information

The meter operator shall send all relevant data flows in accordance with the MRA and the Balancing and Settlement Code (BSC) within the timescales specified.

Wherever the meter operator fits a meter at a premises, the meter operator shall send the relevant data flows to UKPD, including the D0304.

Wherever there is new connection, change in equipment, or in configuration, UKPD issues a flow D0383 to notify operators within 5 working days– this includes a physical change to the meter position, to a CT/VT ratio and to communicate content of CT/VT test certificates. UKPD will also follow up with an email to the contact person at the meter operator company, to share the details with regards to meter position or the CT/VT ration. UKPD also maintains a CT Metering Commissioning spreadsheet.

5.2. Charges

Where a meter operator requests the attendance of UKPD staff to provide technical support any chargeable element will be notified in advance of work being undertaken.

5.3 Site-specific information

Site-specific information will be provided where the request for information is received by data flow D0170. The information will be provided within 5 working days using data flow D0215 and will cover: CT Ratio, CT Class, CT Rating, VT ratio, VT Class, VT Rating, Supply voltage, Supply capacity, MPAN Number, Number of Phases, Metering equipment and Service location

Appendix 1 – Contact details

Type of issue	Contact	Contact detail
General enquiries	Main office is open from 8.30am to 5pm Mon-Fr	0844 74 000 74
Incident/accident on site reporting	Emergency helpline	0800 311 8074
Dangerous situation	Emergency helpline	0800 311 8074
Operational practices and Technical issues	Head of electricity networks	Kevin Mukuzvazva kevinmukuzvazva@ukpowerdistribution.co.uk
Control requirements, access to substations and authorisation of Meter Operatives	Head of electricity networks	Kevin Mukuzvazva kevinmukuzvazva@ukpowerdistribution.co.uk
Commercial	Billing and data validation manager	Alistair Johnson AlistairJohnson@ukpowerdistribution.co.uk
Escalations	Service and compliance manager	Howard Smith howardsmith@ukpowerdistribution.co.uk

Appendix 2 – UK Power Distribution – Authorisation Request Form

Nomination details:

Company Name:	
Full Name of Individual to be assessed:	**Name:** **Email:** **Mobile No:**
Photo ID:	
Role discipline: (e.g. Electricity Distribution – Low Voltage)	
Role to be undertaken: (e.g. Jointer etc.)	
Date of application:	

Assessment Type:

Assessment Type	Tick	Notes
New Application		E.g. Individual is a new entrant.
Re-assessment		E.g. Individuals assessment is due to expiry within 3 months of a current validity period.
Extension		E.g. Individual to be assessed for additional role(s) to original assessment.
Transfer		E.g. Individual leaves an Employing organisation and joins another but will be enacting a role previously assessed to undertake.

If successful, a UKPD Authorisation Certificate will be issued to and will be the property of the above named. The document must be available for inspection, upon request, whenever undertaking work on behalf of UKPD.
The scope of work and competencies will be reviewed and updated as necessary.

Appendix 3 – New metering point principles - MOCOPA version 4.4.

(A) the Distribution Business and the MOCOPA® Operator shall liaise with each other to ensure that new metering work and energisation is completed with the minimum delay;

(B) the Distribution Business shall agree with the Customer or developer the position and space for the Metering Equipment, and shall, in so much as it is within its reasonable control, ensure it remains reserved. The location must be accessible to the Customer so they can read their meter and to the MOCOPA® Operator (via the Customer). Consideration shall be given to the accessibility of the location to all users. The Distribution Businesses' service termination equipment and the Metering Equipment should be located between 0.5 and 1.8m above finished floor level, subject to unavoidable constraints such as security, vandalism or fire risk mitigation;

(C) for HV and LV CT metered supplies, the interface test/isolating facilities shall be installed in an accessible position near to the location of the proposed Metering Equipment. A label must be fitted in accordance with A2.3 of Appendix 2 (MOCOPA). The CT and VT secondary circuits shall be connected to earth on the Distribution Business side of the interface (see MOCOPA appendix 13);

(D) for whole current supplies, a means of isolating voltage supplies (e.g. cut-out) shall be installed in an area to which the MOCOPA® Operator has access (via the Customer);

(E) for cut-out controlled supplies, the Distribution Business is responsible for providing the fuse carriers and fuses. Where these cannot be left on Site (e.g. risk of unlawful energisation), the Distribution Business shall be responsible for providing them to the MOCOPA® Operator in a timely and acceptable manner for the MOCOPA® Operator to perform the energisation (see A2.1 of Appendix 2 (MOCOPA));

(F) it is the responsibility of the Distribution Business to determine the rating of the cut-out fuses. For whole current metered supplies, the Meter Operative shall check the conductors being provided by the Customer are suitably rated for the cut-out fuses provided before he connects them, or Energises the supply (this is limited to checking at the point of connection without needing to take into account any de-rating for thermal conditions within the installation);

(G) the Distribution Business is responsible for commissioning the service (e.g. checking voltage, earth loop impedance, phase rotation, polarity and any protection settings, etc. at the cut-out/switchgear);

(H) the MOCOPA® Operator shall confirm the voltage, phase rotation and polarity at the supply terminals (metering output terminals or isolator switch terminals);

(I) for whole current metered supplies, the MOCOPA® Operator shall make the necessary connections between the Distribution Business equipment, Metering Equipment and the Customer's equipment;

(J) where the Distribution Business is to provide an earth terminal for the Customer, the Distribution Business shall ensure the terminal is accessible to the Customer or contractor, or take responsibility for making the earth connection. (Note: The Customer should have ongoing access to the earth terminal in order to carry out routine tests of his installation);

(K) for HV and LV CT-metered supplies, before connecting Customer conductors, or facilitating the Customer's contractor safe access to suitable terminals, the Distribution Business shall check the conductors being provided by the Customer are suitably rated for the cut-out fuse or circuit breaker protection;

(L) for whole current and cut-out controlled LV CT metered supplies, the MOCOPA® Operator shall Energise the supply subject to the Distribution Business having previously satisfied (E) and (K);

(M) for circuit breaker-controlled LV and HV metered supplies, the Distribution Business shall Energise the supply, in response to a request from the Supplier;

(N) a MOCOPA® Party shall not agree to Energise a supply until it is appropriately metered; Page 15 of 27

(O) the MOCOPA® Operator shall not carry out energisation work unless and until authorised under the Use of System Agreement; and

(P) Conductors shall be coloured and marked in accordance with Appendix 11 (MOCOPA).

Items (C) and (D) above shall be provided by the Distribution Business, chargeable to the Customer, and shall be capable of being sealed to prevent unauthorised access.

MOCOPA® Operators should take note of any requirements in the relevant Distribution Business's statement published as required by Appendix 2 of MOCOPA.

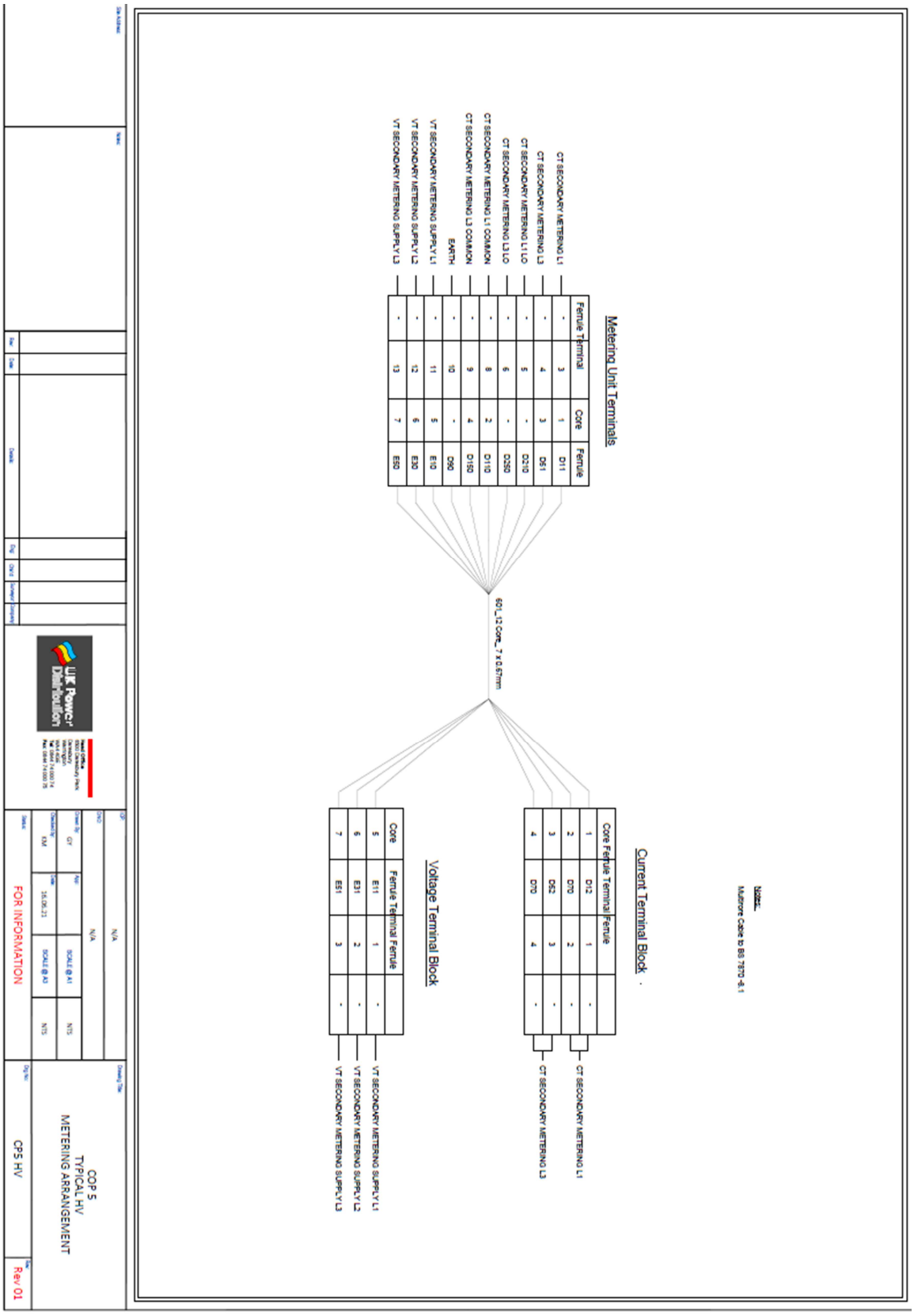
NOTE: Due regard shall be paid in siting meters to the requirements for overall Metering Equipment accuracy. These are affected by the burden imposed, which is related to the length of connections between current transformers and meters.

Operational liaison between the MOCOPA® Operator and the Distribution Business during commissioning of new Metering Equipment shall be covered by the Distribution Safety Rules.

Appendix 4 –UKPD Health and Safety bulletins, shared as a briefing to meter operatives

Null as there is has been no meter related brief to this date.

Appendix 5- Typical HV metering arrangement



Appendix 6- Typical LV metering arrangement

