PR-NET-OSM-083

MANAGEMENT OF ACTIVITIES AT LOW VOLTAGE SUPPLY POINT INTERFACES

OPERATIONAL SAFETY MANUAL - SECTION 13.1

Scottish & Southern Electricity Networks

	Name	Title
Author	N/A	Distribution SHE Team
Checked by	Peter Vujanic	Head of SHE Distribution
Approved by	Richard Gough	Designated Engineer

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1 Introduction

1.1 This document defines the **Approved** procedure for the management of activities at the **Point of Connection (PoC)** between the **SSEN-D System** and **Low Voltage** electrical installations that are independently owned.

1.2 Compliance with the following procedure **Shall** enable staff and **Approved** contractors to work safely and reduce the risk of injury to themselves and their colleagues and to prevent damage to **Low Voltage** interface equipment, so far as is reasonably practicable.

1.3 This policy details actions required to effectively manage the interface between **SSEN-D** and a **Meter Operator (MOP)** authorised in line with the Retail Energy Code (REC) superseding the Meter Operators Code of Practice Agreement (REC / MOCOPA).

1.4 In line with the REC, **SSEN-D** may allow **MOP**s to achieve safety for the purpose of their activities by the operation of a **SSEN-D** controlling **Low Voltage** fuse of cut-out equipment / terminal blocks at the Service or riser termination.

2 Scope

2.1 The scope of this document **Shall** be limited to persons who are required to work at supply interface points with Third-Party electrical installations and who hold the appropriate competence and authorisation to carry out specified duties.

2.2 This document also covers:

- General requirements for **MOP**s
- **SSEN-D** acceptance criteria of any **MOP** that has been previously authorised through the REC / MOCOPA for a minimum period of two years
- The process for gaining access to **SSEN-D** or consumer owned substations
- The Electricity Safety, Quality and Continuity Regulations (as amended), Reg. 31 requirements
- Actions following discovery of fault, e.g. reverse polarity

2.3 The procedures included herein have been developed to minimise incidents associated with human error by ensuring that:

- A consistent approach is maintained for the management of work at the **PoC** between the **SSEN-D System** and **Low Voltage** electrical installations that are independently owned
- Prevent potential damage to **SSEN-D** owned equipment
- At all times consideration is given to the operating characteristics of the **System** and the **Dangers** imposed

2.4 Where the **PoC Low Voltage** supplies are un-metered, different arrangements and authorisations than those specified in this document might apply to the connection and isolation of these types of supplies. Arrangement of this nature are excluded from this document (See PR-NET-OSM-084 Management of Activities at the Interface with Un-metered Supply Points - Operational Safety Manual – Section 13.2).

3 References

The documents detailed in Table 3.1 - Scottish and Southern Electricity Networks Documents, and Table 3.2 - External Documents, should be used in conjunction with this document.

Table 3.1 - Scottish and Southern Electricity Networks Documents

Reference	Title
PR-NET-OSM-006	SSEN Distribution Operational Safety Rules – Operational Safety Manual – Section 1.1
PR-NET-OSM-028	Switching Terminology and Approved Abbreviations - Operational Safety Manual - Section 4.4
PR-NET-OSM-084	Management of Activities at the Interface with Un-metered Supply Points - Operational Safety Manual – Section 13.2
PR-NET-OSM-069	Testing at Low Voltage Supply Points - Operational Safety Manual – Section 10.4
SP-NET-CAB-429	Specification for Low Voltage House Service and Street Lighting Cut Outs
TG-NET-ENG-006	Distribution Asset Management Timescale Plans for Inspection, Servicing, Maintenance and Condition Monitoring Distribution Timescales
WI-NET-OSM-002	Personal Protective Equipment and Workwear for Live Environments
N/A	SSEN SHE Handbook (Held in Safety, Health and Wellbeing SharePoint Site)

Table 3.2 - External Documents

Reference	Title
ESQCR	Electricity Safety, Quality and Continuity Regulations 2002 (as amended)
ENA TS 12-3	Energy Networks Association Technical Specification 12-3 - Outdoor Meter Cupboards
NRSWA	New Roads and Streetworks Act (as amended)
REC / MOCOPA	Retail Energy Code / Meter Operation Code of Practice Agreement (as amended)

4 Definitions

4.1 The words printed in bold text within this document are either headings or definitions. Definitions used within this **Approved** procedure are defined within the list presented immediately below, or within Section 2 of the **Operational Safety Rules (OSR).**

4.2 **Appointed Electricity Supplier**

A chosen Supplier who provides a home or business with energy.

4.3 **Meter Operator (MOP)**

A party who holds a Registration Certificate or a provisional Certificate issued by the REC / Meter Operation Code of Practice Agreement (REC / MOCOPA).

4.4 **Metering Equipment**

The equipment associated with a particular meter itself and any related current transformers (CT), voltage transformers (VT) and communication and / or control equipment.

4.5 **Occupier**

The established user of a place such as a home, office or factory.

4.6 **Operational Safety Rules (OSR)**

The **SSEN-D** Distribution set of rules, as read with related documents and procedures, that provide generic safe systems of work on the **System** therefore ensuring the health and safety of all who are liable to be affected by any **Danger** that might arise from the **System**.

4.7 **Point of Connection (PoC)**

The point (or points) of physical connection between the **System** and metered installations that are independently owned.

5 General Responsibilities

5.1 Persons who are required to operate and undertake work on the **System**, **Shall** have a thorough understanding of the work and ensure on site risks are suitably assessed and appropriate control measures put in place before, during and after all activities.

5.2 Persons must ensure that at all times during the work (or associated testing) **General Safety** arrangements are maintained and that other work areas are not adversely affected by the activities for which they are responsible.

6 Authorisation

6.1 Persons who are required to operate and undertake work on the **System** or part thereof, **Shall** have a thorough understanding of the work and ensure on site risks are suitably assessed and appropriate control measures put in place before, during and after all activities.

6.2 It **Shall** be the responsibility of the individual to ensure that any actions performed are within the bounds of their competency and authorisation level.

6.3 Competence and authorisation certificates **Shall** be retained personally and be made available upon request.

7 Personal Protective Equipment

7.1 Persons who are required to work or carry out **Switching** on **Low Voltage Systems Shall** wear suitably **Approved** Personal Protective Equipment (PPE). Furthermore, where warning labels or labels that identify a particular hazard exist, additional and appropriate PPE **Shall** be worn.

7.2 As a minimum, PPE **Shall** meet the requirements of WI-NET-OSM-002. However, it must be kept in mind that where work takes place beyond the **SSEN-D** ownership boundary, the **MOP**s might have their own or additional PPE requirements which **Shall** be adhered to whilst employees are beyond the boundary, as long as there is no conflict with **SSEN-D** minimum PPE requirements.

8 General Requirements

8.1 For new connections, the developer **Shall** be responsible for the provision of a suitable enclosure for **SSEN-D Apparatus**. The enclosure **Shall** be lockable, fire resistant, weatherproof and vandal proof. Where applied, locks and seals **Shall** be of an **Approved** type in accordance with Energy Networks Association Technical Specification 12-3.

8.2 The enclosure **Shall** take into account public safety by providing secure accommodation, and the safety of **SSEN-D** staff and **Approved** contractors by permitting ready (controllable) access from ground level. Where applicable ground access **Shall** be arranged so as to reduce the **Danger** from adjacent passing traffic.

8.3 Where enclosures are to be located in shared buildings or similar, consideration **Shall** be given to the layout as well as adequately illuminated access and egress routes. In the event of an emergency, a person's safe exit is paramount. Where practicable, enclosures **Shall** be positioned in a separate building or on an outside wall unless otherwise agreed.

8.4 The fixing of third-party equipment to an **SSEN-D** owned meter board or similar located in **Shall** not be permitted without the consent of **SSEN-D** in the form of a written agreement in place.

8.5 Outdoor meter cabinets intended for use at the **PoC** between the **SSEN-D System** and the Third-Party electrical installation, i.e. the service termination and **Metering Equipment** point, **Shall** conform to Energy Networks Association Technical Specification 12-3 - Outdoor Meter Cupboards. The cabinet door **Shall** be embossed with the statutory safety sign for '**Danger** Electricity'.

8.6 Other meter cabinet designs are permissible for use, for example cabinets housing equipment associated with **High Voltage** metering or similar. Cabinet designs **Shall** meet the requirements of 8.1.

8.7 Where applicable, persons who have been issued with an access key and given the necessary authority for access to meter cabinets, **Shall** be responsible for maintaining security for the full duration of their visit, ensuring all access doors are secure and, where applicable, locks are replaced on leaving site.

8.8 Where a cut-out provides the **PoC** between the **SSEN-D System** and the Third-Party electrical installations, the cut-out **Shall** be of an **Approved** design and of a suitably rated capacity for its intended purpose. Cut-out designs **Shall** meet the requirements of SP-NET-CAB-429.

9 Meter Operator Requirements

9.1 General

9.1.1 A **MOP** who requires to work on the **SSEN-D** Distribution **System** for the purpose of metering operations **Shall** hold a valid registration, be a signatory to the REC / MOCOPA and have agreed to the principles contained within this **Approved** procedure before undertaking any work on the **SSEN-D** Distribution **System**.

9.1.2 All **MOP**s must comply with the REC / MOCOPA and **Shall** ensure that their Meter Operatives are aware of the requirements of all relevant legislation so as to secure their own safety and the safety of others.

9.1.3 All **MOP**s **Shall** provide a contact name, address and telephone number where a responsible person can be contacted at all reasonable times for the notification of accidents / incidents and for any other reason **SSEN-D** require.

9.1.4 All **MOP**s **Shall** by monthly return provide details in an agreed format, of all operatives working under their control in the **SSEN-D** region. Details **Shall** also highlight any changes since the last return.

9.1.5 All **MOP** personnel who access **SSEN-D** assets at the interface between **SSEN-D**'s **System** and their **Metering Equipment Shall**:

- Have received basic first aid training
- Have available an **Approved** first aid kit
- Have available their **MOP** Authorisation Certificate
- Have with them a photograph Identification card

9.1.6 The Electricity Safety, Quality and Continuity Regulations (as amended), Regulation 31 requires that certain specified events are reported to the Health & Safety Executive or The Department for Business, Energy & Industrial Strategy. The **MOP** should report directly to these bodies as required under the regulations where it has the duty to report.

9.1.7 Where events are the responsibility of **SSEN-D** to report then the **MOP Shall** advise **SSEN-D** of the event and circumstances in order that **SSEN-D** can discharge its legal duty.

9.1.8 Some events may be the responsibility of the Supplier to report, and the **MOP** must similarly notify them.

9.2 Access to SSEN-D Substations and Switching Sites

9.2.1 New substations are arranged such that the **MOP**s meters are located in a freely accessible position that does not require entry to a **SSEN-D** substation.

9.2.2 Many existing meter installations are generally located in buildings shared with the **Occupier** or other network operators. Under these conditions the **Occupier** is responsible for providing and enabling access to the **Occupier** owned substation where the meter is located.

9.3 SSEN-D Equipment

9.3.1 In accordance with **SSEN-D** application of REC / MOCOPA, **MOP** employees and their accredited contractors that work under REC / MOCOPA authorisation are allowed access to **SSEN-D Apparatus** for the purpose of completing REC / MOCOPA related operations only.

9.3.2 This access relates only to the **SSEN-D** controlling **Low Voltage** fuse of cut-out equipment / terminal blocks to allow the **MOP** the facility to remove / replace the fuse to make **Dead** or re-energise the supply when carrying out work on the **Metering Equipment**.

9.3.3 When carrying out these activities the **MOP** do so under the governance of REC / MOCOPA and not **SSEN**s authority and therefore the duty of care remains largely with the MOP. When carrying out these duties it is essential:

- All operatives work in accordance with the REC / MOCOPA and **SSEN-D** requirements
- All defects must be reported to **SSEN-D**
- All **Apparatus** must be made and left secure

9.3.4 All work and operations completed on site by the **MOP** employees or contractors **Shall** be completed under the governance of the **MOP**s Safety Management systems. **SSEN-D** accept no responsibility for the **MOP**s workforce or their actions; **SSEN-D** are simply allowing the **MOP** access to **SSEN-D** assets at the interface between **SSEN**s **System** and the **Metering Equipment** in the interests of safe working.

9.3.5 It is **SSEN**s responsibility for commissioning the service, e.g. checking voltage, **Earth** loop impedance, polarity and protection settings, etc. at the cut-out / switchgear. See PR-NET-OSM-069 Testing at Low Voltage Supply Points - Operational Safety Manual – Section 10.4. It is the **MOP**s responsibility to check voltage, phase rotation and polarity at the metering output terminals or isolator switch terminals.

9.3.6 If a safety or quality issue is discovered by **SSEN-D** on the **MOP** asset, **SSEN-D Shall** make the suspect component **Dead** and report, without undue delay, to the **MOP** the findings and the safety precautions taken.

9.3.7 If **SSEN-D** discover a safety or quality issue at the **System** interface with the meter position following **MOP** activities, for example, physical damage, overheating, cross polarity, inadvertent reverse phase rotation, **SSEN-D Shall** record the details, disconnect the supply where necessary to make the site safe, inform the customer, the **MOP** and where necessary REC / MOCOPA Registration Authority.

9.3.8 REC / MOCOPA requires that where **SSEN-D** identify safety or asset related issues then **SSEN-D** have a duty to communicate information about these to those persons who have the potential to be exposed to any associated risk, e.g. operational persons. The notification process requires **MOP**s to identify an email address to **SSEN-D** where such information can be received. The **MOP** is responsible for any onward dissemination of the information as it considers necessary, to everyone who works on its behalf.

9.3.9 After installation, commissioning or testing of the metering **System** at the interface with the **SSEN-D System** has been completed, all **Metering Equipment**, test terminal blocks, VT fuses and cut-outs **Shall** be sealed in accordance with the REC / MOCOPA sealing requirements.

9.3.10 Seals **Shall** be marked to show the **MOP**s company and the identity of operative who was responsible for sealing on site.

9.4 Appointed Electricity Suppliers Equipment

9.4.1 The **MOP**s **Metering Equipment Shall** not be fixed upon any equipment belonging to **SSEN-D**, such as metering panels (excluding meter boards) without **SSEN**s prior written agreement.

9.4.2 When working on their asset, e.g. replacing damaged cut-outs or rotten meter boards, **SSEN-D** will remove the **Appointed Electricity Suppliers** meter terminal cover for the purpose of fixing the meter to the new meter board and / or checking tightness of the terminal screws. On completion of the work, the meter terminal cover **Shall** be replaced and sealed.

9.4.3 **SSEN-D Shall** not move or work on the **Appointed Electricity Suppliers** equipment for the purposes of service alterations without prior written agreement.

9.5 Audit Protocol

9.5.1 **SSEN-D Shall** review the details provided in the annual audit carried out by REC / MOCOPA and use this as a routine check of on-going competence and compliance.

9.5.2 **SSEN-D** reserve the right to conduct unannounced site audits either before or after completion work being carried out by the **MOP**.

9.5.3 The purpose of the Audit is as follows:

- To ensure the correct procedures have been adopted effectively and sufficiently to deliver and leave a safe site of work
- To fulfil an enhancement function through the dissemination of information on good practice found and where deficiencies are found, to require and / or recommend appropriate action for improvement

9.5.4 Site audit of the installation of metering systems at the interface of **SSEN**s **System** is to establish whether or not:

- Safe working practices are being used
- Technically competent persons are carrying out or supervising the work
- All equipment is sealed in accordance with REC / MOCOPA requirements

9.6 Withdrawal of Rights under REC / MOCOPA

9.6.1 **SSEN-D** reserve the right to withdraw their agreement to the policy under the grounds of safety where significant concerns are raised with regard to the competence of the **MOP** or employees working on behalf of the **MOP**.

9.6.2 Dependent on the scale of the concern, this withdrawal will be either with immediate effect or following a period where an opportunity to improve has expired. REC / MOCOPA Registration Authority will be informed of actions taken.

9.6.3 Where this agreement is withdrawn, no operations will be allowable unless conducted by a **SSEN-D suitably Authorised Person**.

9.6.4 Where this agreement is withdrawn or when a **MOP** is working through an improvement period, it is anticipated that REC / MOCOPA Registration Authority will play a part in the identification, management and resolution of the issues.

10 Procedure

10.1 General

10.1.1 Persons who are required to undertake operations or work on the **PoC** between the **SSEN-D System** and Third-Party electrical installation, **Shall** be aware of the **Dangers** that might arise. The main **Dangers** include, electric shock, burns and serious injury arising from:

- Persons working on wrongly identified equipment
- Electric shock from direct and indirect contact
- Poor planning leading to a failure in the co-ordination of on-site work activities
- Failure to adequately control vehicle movement in the vicinity of work

10.1.2 Access to the **PoC** between the **SSEN-D System** and the Third-Party electrical installations **Shall** be by a suitably appointed **Competent Person** who holds the appropriate competency and authority level.

10.1.3 Before gaining access, the **Competent Person** in charge of the work **Shall** ensure that a risk assessment is undertaken. Where the meter cabinet, is found in a condition that poses a risk to the safety of staff, **Approved** contractors and the public, immediate action **Shall** be taken to secure the enclosure.

10.1.4 Where it is not safe to access, operate or work at the **PoC** between the **SSEN-D System** and the Third-Party electrical installation, the **PoC Shall** be made **Dead** in order to avoid **Danger**. Dependent upon risk, the **Competent Person** in charge of the work may consider it necessary to attach a warning label that gives notice to others of the **Dangers**. The removal of the warning label should only take place when the risks from **Danger** have been permanently eliminated.

10.1.5 Where applicable, the **Competent Person** in charge of the work **Shall** ensure adequate signing and guarding is used to prevent injury and to minimise any inconvenience to the public, especially where the meter cabinet is located in a footpath or thoroughfare.

10.1.6 The **Competent Person** in charge of the work **Shall** ensure that adequate working space and safe means of access is maintained at the at all times during the course of work.

10.1.7 The **Competent Person Shall** ensure that at all times the work conduct work activities in such a manner and that precautions are taken to prevent contact between any part of their body, any working tool and any **Live Conductor**. All work and operations **Shall** be carried out in accordance with the relevant safety precautions defined in the **OSR**.

10.1.8 On completion of work activities, the **Competent Person** in charge of the work **Shall** ensure that meter cabinet are securely closed, locked and sealed where applicable.

10.2 Inspection Regimes

10.2.1 Meter cabinets can be subject to:

- Degradation.
- Intentional and unintentional damage.
- Unauthorised access.

10.2.2 Consequently, and to ensure the safety of its staff, **Approved** contractors and public, **SSEN-D Shall** ensure that a regular inspection and maintenance regime is established and maintained for meter cabinets so far as is reasonably practicable. The frequency of inspection **Shall** and scheduled servicing **Shall** meet the requirements of TG-NET-ENG-006.

11 Revision History

No	Overview of Amendments	Previous Document	Revision	Authorisation
01	New document created	TBC	1.00	Richard Gough
02				