## 1. SCOPE

This document details the Company's installation requirements for underground connected loads up to and including 11kV. The document specifically relates to new industrial and commercial projects constructed under Ofgem's competition in connections regime and is not to be applied retrospectively.

The document forms the appendix to, and shall be read in conjunction with, the Energy Networks Association Engineering Recommendations EREC G81 – Parts 4, 5 and 6 (Framework for new industrial and commercial underground connections; design and planning, materials specification and installation and record) and associated new HV / LV distribution substations.

## 2. ISSUE RECORD

This is a Controlled document. The current version is held on the EN Document Library.

**It is your responsibility to ensure you work to the current version.**

| Issue Date | Issue No. | Author | Amendment Details |
|---|---|---|---|
| November 2004 | 1 | Jonathan Giff | Initial Issue |
| September 2014 | 2 | Graeme Vincent | General revision and update |
| December 2019 | 3 | Jonathan Mitchell<br>Stephen Jones | Planned review and update |
| November 2025 | 4 | Alastair J. Oldfield | Planned review. Document References, Document Owner and Issue Authority updated. |

## 3. ISSUE AUTHORITY

| Author | Owner | Issue Authority |
|---|---|---|
| Alastair J. Oldfield<br>Lead Design Engineer<br>Network Planning & Regulation | Richard Harcombe<br>Distribution Network Manager (SPM), Network Planning & Regulation | Iain Divers<br>Head of Distribution Networks<br>Network Planning & Regulation<br><br> <br><br>Date: 21/11/2025 |

## 4. REVIEW

This is a Controlled document and shall be reviewed as dictated by business / legislative change but at a period of no greater than 5 years from the last issue date.

## 5. DISTRIBUTION

This document is not part of a Manual maintained by Document Control and does not have a maintained distribution list. This document is published to the SP Energy Networks website.

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## 7. DEFINITIONS AND ABBREVIATIONS

| | |
|---|---|
| **Applicant** | The Company wishing to undertake the contestable work. |
| **Approved** | Equipment approved in accordance with the Company's Equipment Approvals Procedure, and which is considered suitable for installation on the Company network. |
| **Company** | SP Distribution plc and SP Manweb plc |
| **Housing Estate** | A development consisting of domestic dwellings. |
| **SP Distribution plc** | The Distribution Licence Holder for the Distribution service area formerly known as ScottishPower. |
| **SP Energy Networks** | The brand name for the division of the ScottishPower group of companies that encompasses SP Distribution plc, SP Transmission plc, SP Manweb plc and SP Power Systems Ltd. |
| **SP Manweb plc** | The Distribution Licence Holder for the Distribution service area formerly known as Manweb. |
| **SP Power Systems Ltd** | Operator of network assets on behalf of the Company. |

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## 8. RELATED DOCUMENTS

This document is one of a suite of specifications relating to this subject area and shall be read in conjunction with:

(a) **Energy Networks Association Documents:**

Engineering Recommendation G81 – Framework for Design and Planning, Materials Specification and Installation and Record of industrial and Commercial Underground Connected Loads Up To and Including 11kV.

- Part 4: Design and Planning
- Part 5: Materials Specification
- Part 6: Installation and Records

(b) **The Company Internal Documents:**

- Materials Specification Framework for Industrial and Commercial Underground Connected Loads Up To and Including 11kV
  (Ref. **EPS-03-031**)
- New Connections Independent Connection Provider (ICP) Approval Policy
  (Ref. **ASSET-01-015**)

All materials shall comply with both the requirements described within this document and those detailed in (a) and (b) above.

## 9. GENERAL

The data and guidance contained within this document remains the property of the Company and may not be used for purposes other than that for which it has been supplied and may not be reproduced either wholly or in part, in any way whatsoever, nor may it be used by, or its contents divulged to, any other person whatsoever, without the prior written permission of the Company.

This document applies to new installations and is not to be applied retrospectively.

The Company reserves the right to change the data contained within this document without notification. Although specific network extensions will have designs proposed by third parties, the Company retains the responsibility for the design of the distribution system and since the guidance cannot cover every eventuality, reserve the right to apply other criteria where necessary. The Company accepts no responsibility for any inaccuracies in, or omissions from the document.

The Applicant is responsible for ensuring they have all relevant information to undertake the work. Only Applicants possessing the appropriate skills, training, experience and accreditation, as detailed in **ASSET-01-015**, shall use the data and guidance contained within this document.

The data and guidance contained within this document gives details on materials and does not embrace the physical design and construction of the distribution system or the associated safety, environmental and legal requirements.

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## 10. INSTALLATION SPECIFICATIONS

All equipment offered by the Applicant shall have successfully passed the type-approval tests specified in the relevant standard (ENATS, BS, IEC) specified in **EPS-03-031**. If the Applicant wishes to incorporate any change which may in any way modify or affect the performance of the equipment, such changes shall be notified in writing and arrangements made for repeat type-approval testing. The costs of such testing shall be borne by the Applicant. Certified evidence that the equipment offered for adoption is in accordance with the specification shall be submitted.

Only Approved equipment and materials detailed in **EPS-03-031** and the Company's Approved Equipment Register shall be used. Only new equipment and materials shall be installed unless prior agreement is obtained in writing from the Company's Head of Asset Management.

### 10.1 Installation, Commissioning and Testing

All equipment shall be installed and commissioned in accordance with the following Company documents unless prior written agreement is obtained in writing from the Company's Head of Asset Management.

| Document Title | Reference |
|---|---|
| Handling and Installation of Cables up to and including 33kV | CAB-15-003 |
| Policy and Application Guide for 11kV Polymeric Cables | CAB-04-009 |
| Low Voltage Earthing Policy and Application Guide | EART-01-002 |
| Technical Specification for Earthing and Bonding at Secondary Substations | EART-03-003 |
| Secondary Substation Installation and Commissioning Specification | SUB-02-006 |

All installations shall be tested in accordance with the following documents.

| Item | Document Title | Reference |
|---|---|---|
| Earth Resistance at Secondary Substations | Technical Specification for Earthing and Bonding at Secondary Substations | EART-03-003 |
| Each service | Inspection and Testing of New Low Voltage Supplies | EPS-04-016 |
| LV Fuse Cabinet | Secondary Substation Installation and Commissioning Specification | SUB-02-006 |
| Each new section of cable | Electrical Insulation Testing of HV Equipment up to 33kV | SUB-02-613 |
| HV/LV Transformer | Electrical Insulation Testing of HV Equipment up to 33kV | SUB-02-613 |
| HV Switchgear | Electrical Insulation Testing of HV Equipment up to 33kV | SUB-02-613 |
| HV Cables | Electrical Insulation Testing of HV Equipment up to 33kV | SUB-02-613 |

### 10.2 Asset Recording

The recording of information pertaining to installed assets shall be undertaken in accordance with the following document:

| Document Title | Reference |
|---|---|
| Recording of Electrical Assets by Contractors | BUPR-22-015 |

Company internal documents are available to download from the SP Energy Networks website.

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