

Electricity Specification 281

Issue 11 December 2022

Company-Specific Appendices to ENA Engineering Recommendation G81



Amendment Summary

ISSUE NO. DATE	DESCRIPTION
Issue 9 July 2021	<p>Restructure and reformatting to the latest template for Model Electricity Specification. Parts 2 and 5 have been combined into one new document.</p> <p>Addition of 1kV and 11kV LSOH sheathed cables in Appendix 2/5.</p> <p>Prepared by: Philip Howell Approved by: Policy Approval Panel and signed on its behalf by Steve Cox, Engineering and Technical Director</p>
Issue 10 December 2021	<p>400mm² versions of 11kV cable added to Parts 2/5</p> <p>Prepared by: Philip Howell Approved by: Policy Approval Panel and signed on its behalf by Steve Cox, Engineering and Technical Director</p>
Issue 11 December 2022	<p>Underground Link boxes updated to Mk3 versions Tape specifications updated.</p> <p>Section 5.1 updated to include Lucy VRN2a approved relay.</p> <p>Sections 5.4 and 7 to include approved transformer suppliers.</p> <p>Prepared by: Philip Howell Approved by: Policy Approval Panel and signed on its behalf by Steve Cox, Engineering and Technical Director</p>

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1 Introduction

The design and installation of new connections to electricity distribution networks, provided by Independent Connections Providers (ICP), is governed by a nationally agreed document, prepared by the Energy Networks Association (ENA) and endorsed by the Office for Gas and Electricity Markets (Ofgem). That document, Engineering Recommendation (ER) G81, provides a “Framework for design and planning, materials specification, installation and records” and covers low voltage housing development installations and associated, new, HV/LV distribution substations, and industrial and commercial underground-connected loads up to and including 11kV. ER G81 requires licensed Distribution Network Operators (DNO) to provide, in addition, their own company-specific appendices, setting out in more detail their own requirements and specifications, for installations, which they will adopt.

ER G81 comprises 7 parts, covering the following aspects:

Part 1: Design and planning of new low voltage underground cable electricity networks, including their new associated HV/LV distribution substations, for housing developments;

Part 2*: Materials specification for new low voltage underground cable electricity networks, including their new associated HV/LV distribution substations, for housing developments;

Part 3: Installation and records of new low voltage underground cable electricity networks, including their new associated HV/LV distribution substations, for housing developments;

Part 4: Design and planning of new underground connections at voltages up to and including 11kV for industrial and commercial loads;

Part 5*: Materials specification for new underground connections at voltages up to and including 11kV for industrial and commercial loads;

Part 6: Installation and records of new underground connections at voltages up to and including 11kV for industrial and commercial loads;

Part 7: Design and planning, materials specification, inspection and records requirements for contestable diversionary and reinforcement works on underground cables and overhead lines not exceeding 33kV and on HV/LV distribution substations.

Electricity North West Limited has prepared its own appendices to Parts 1 to 6 of ER G81. These take the form of Parts 1 to 5* respectively of this Electricity Specification (ES).

*Parts 2 and Parts 5 of ER81 have been combined to avoid extensive duplication and make the document easier to read.

2 Definitions

CP	Electricity North West Code of Practice
Distribution Substation	11kV to LV, or 6.6kV to LV substation
DNO	Distribution Network Operator
ENA	Energy Networks Association
Engineer	Electricity North West's Competitive Adoptions Manager, or his delegated representative
EPD	Electricity North West Electricity Policy Document
ER/EREC	ENA Engineering Recommendation
ES	Electricity North West Electricity Specification
HV	High Voltage, i.e. either 11kV or 6.6Kv
ICP	Independent Connection Provider
NJUG	National Joint Utilities Group
NRSWA	New Roads and Street Works Act 1991
Ofgem	Office of Gas and Electricity Markets
Primary Substation	33kV to 11kV, or 33kV to 6.6kV substation, or, for the purposes of this document, 132kV to 11kV substation
XLPE	Cross-Linked Poly-Ethene

3 Documents Referenced

DOCUMENTS REFERENCED	
New Roads and Street Works Act 1991.	
ENA ER G81	Framework for design and planning, material specification, installation and record for LV housing development installations and associated HV/LV distribution substations and industrial and commercial underground connected loads up to and including 11kV.
See also the documents referenced in each Part of this ES281.	

4 Keywords

See the keywords listed in each Part of this ES281.