



Engineering Recommendation G39

Issue 2 2013

Model code of practice covering electrical safety in the planning, installation, commissioning and maintenance of public lighting and other street furniture

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First published, 1992

Amendments since publication

Issue	Date	Amendment
Issue 2	January, 2013	<p>Major revision of Issue 1 to reflect significant changes to legislation and Standards since 1992.</p> <p>Converted into the new ENA Engineering Recommendation (EREC) template and updated in accordance with Engineering Recommendation G0 Issue 1 2012 <i>Rules for structure, drafting and presentation of ENA engineering documents</i>.</p> <p>Re-assigned retained text from Issue 1 into the revised structure of the template, along with considerable amendment and addition to the content. This issue includes the following principal editorial and technical changes.</p> <p>Foreword added and explanatory information included.</p> <p>Introduction amended (including applicable legislation) and list of organisations to be consulted updated.</p> <p>Clause 1 Scope: New clause added outlining revised scope of the document.</p> <p>Clause 2 Normative references: New and updated key documentation referenced.</p> <p>Clause 3 Terms and definitions: Existing terms and definitions updated and new terms and definitions added relating to agent, TN systems and TT systems.</p>

		<p>Clause 4 Statutory Requirements: The summary of applicable legislation updated and new referenced legislation added. Deleted reference to:</p> <ul style="list-style-type: none">• The Factories (Electrical Energy) Regulations 1908• The Electricity (Factories Act) Special Regulations 1944• The Electricity Supply Regulations 1988 <p>Clause 5 Planning of Public Lighting Systems: Text amended and reference to Appendix C changed to Annex A. Added reference to ILP GP10 and requirement for consultation to include consultants or any other body planning public lighting installations.</p> <p>Clause 6 Means of providing electricity supplies to public lighting and other street furniture: Amended, updated and new sections added to reflect changes in legislation, recommendations and nomenclature whilst retaining general key points from Issue 1. Updated text relating to earthing and bonding of lighting column doors, 5th cores, PME and TT systems. Deleted reference to The Electricity Supply Regulations Street Lighting Exemption 1991. Changed requirements for enclosure height from 3 m to 2.5 m in line with latest Standards. Added note regarding insertion/removal of the main fuse for metered supplies.</p> <p>Clause 7 Erection of columns, lanterns and other street furniture other than on DNO poles: Text updated and reference to Appendix C replaced by reference to Annex A.</p> <p>Clause 8 Erection of lanterns or illuminated signs attached to DNO-owned low voltage poles: Updated and new NOTE on public safety and positioning added.</p> <p>Clause 9 Commissioning, maintenance, repair and emergency attention: Text throughout extensively updated and new sub-clauses added.</p> <p>Clause 10 Avoidance of danger from accidental contact with live conductors during the erection, commissioning and maintenance of public lighting and other street furniture: Text throughout has been updated included “above LV” changed to “high voltage” and added recommendation for physical measures to prevent platforms infringing safety clearances.</p> <p>Clause 11 Competent Persons: Clause and associated Annexes B and C amended. Annex D added as general guidance notes for training providers. Deleted requirement to notify DNO of Category 2 and Category Authorisations at time of authorisation. Added reference to HERS competency scheme. Added note regarding insertion/removal of the main fuse for metered supplies.</p> <p>Clause 12 Developments in electrical equipment: Amended title and reformatted and updated.</p> <p>Annex A Clearances between columns and overhead lines: Originally Appendix A. Sub-clauses renamed and renumbered. Wording of Clause A.2 significantly rationalised and explanatory text deleted. Fig 1 (Clearances from Low Voltage Conductors) moved from the original Appendix C to Annex A as Figure A.1.</p> <p>Annex B Model form of Competent Persons Authorisation Certificate: Minor rewording and formatting of Model Form and cross reference to Annex C.</p>
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		<p>Annex C Guidance notes for Competent Persons:</p> <p>Contents moved from Appendix B. Minor rewording and formatting of Guidance notes for Competent Persons. Added "These are considered the minimum requirements..." Changed "Company" to "DNO" throughout.</p> <p>Addition of a new Annex D General guidance notes on training requirements:</p> <p>New addition to EREC G39 to emphasise key points for consideration by organisations or individuals that provide Competent Persons training.</p> <p>Added requirements for trainer qualification and electrical background for persons, who are required to carry out electrical work.</p> <p>Bibliography added at end of document.</p> <p>Details of all other technical, general and editorial amendments are included in the associated Document Amendment Summary for this Issue (available on request from the Operations Directorate of ENA).</p>
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Foreword

This Engineering Recommendation (EREC) is published by the Energy Networks Association (ENA) and comes into effect from the date of publication. It has been prepared under the authority of the ENA Engineering Policy and Standards Manager and has been approved for publication by the ENA Electricity Networks and Futures Group (ENFG). The approved abbreviated title of this engineering document is “EREC G39”, which replaces the previously used abbreviation “ER G39”.

This Engineering Recommendation replaces and supersedes Engineering Recommendation G39 Issue 1 1992.

This document is intended primarily for use by Distribution Network Operator and Street Lighting Authority personnel, who are involved in planning, installation, commissioning, and maintenance of public lighting and other street furniture. The requirements equally apply to contractors working on behalf of Street Lighting Authorities and may be applied to other bodies carrying out similar activities including new installations that will be adopted by Street Lighting Authorities. It is also a useful reference for providers of Competent Persons training.

Where the term “shall” or “must” is used in this document it expresses a mandatory requirement. The term “should” is used to express a recommendation.

The term “lantern”, as defined in Clause 3, is used throughout the document, being carried forward from ER G39 Issue 1, and is interchangeable with the term “luminaire”, which is commonly used.

Introduction

This Code of Practice provides guidance on electrical safety and has been revised to reflect changes in legislation, Standards and practices since publication of ER G39 Issue 1.

The document has been prepared with the intention of giving advice on how interface problems involving work on, or access to, public lighting and other street furniture may be dealt with in a reasonably practicable way, to provide a consistent approach when individual interests overlap. It is not intended to deal with fundamental approaches to safety or to re-state safety policies or the way in which these are implemented by the various parties concerned; neither does it deal with methods of work, tools and equipment developed to deal with a wide range of problems separately encountered by individual organisations.

This revision has been prepared in consultation with the Health and Safety Executive (HSE), the Institution of Lighting Professionals (ILP), the Highway Electrical Association (HEA), the ENA Safety, Health and Environment (SHE) Managers Working Group and ENA Member Companies (ENA MCs).

Where a contractual agreement exists between parties concerned, this Code of Practice is not intended to supersede such an existing agreement.

When public lighting is being installed, the Street Lighting Authority is responsible for safe conduct of the work and for ensuring that appropriate clearances from existing overhead lines are provided. The Distribution Network Operator (DNO) is responsible for ensuring that appropriate clearances are observed when they erect overhead lines adjacent to existing public lighting. For all work it should be remembered that the duties of the employer and employees must be governed by the *Health and Safety at Work etc Act, 1974* [1], *The Electricity at Work Regulations, 1989* [2], *The Electricity Safety, Quality and Continuity Regulations 2002* [3], as amended, and any other relevant statutory requirements (see Clause 4).

1 Scope

This Code of Practice is primarily intended to address unmetered supplies and sets out recommended safety procedures and clearances for ensuring electrical safety in the planning, installation, commissioning and maintenance of public lighting and other street furniture. Where supplies are metered, different arrangements and authorisations may apply to the connection and isolation of these types of supplies.

2 Normative references

The following referenced documents, in whole or part, are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

Standards publications

BS 7430:2011, *Code of practice for protective earthing of electrical installations*

BS 7671:2008, *Requirements for Electrical Installations. IET Wiring Regulations Seventeenth Edition* (as amended)

Other publications

[N1] ILP GP10, *Safety during the Installation and Removal of Lighting Columns and similar Street Furniture in proximity to High Voltage Overhead Lines*

[N2] ILP GP03, *Code of Practice for Electrical Safety in Highway Electrical Operations*

[N3] HSE Guidance Note GS6, *Avoidance of danger from overhead electric power lines*

[N4] ENA TS 43-8 Issue 3 with Amendment 1:2004, *Overhead Line Clearances*

[N5] ENA ER G12, *Requirements for the Application of Protective Multiple Earthing to Low Voltage* (under review/revision)

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

agent

person or party who is authorised to carry out work on behalf of the DNO

3.2

Authority

authority responsible for public lighting or other street furniture installation

NOTE: This term includes contractors working on behalf of the Authority.

3.3

Distribution Network Operator (DNO)

organisation that owns and/or operates the electricity distribution network

NOTE: The requirements for DNOs may equally apply to Independent Distribution Network Operators (IDNOs).

3.4

Competent Person

person appointed in writing to carry out a defined range of tasks, who has the necessary skill, technical knowledge and/or experience, and other appropriate qualities, to identify and avoid danger to themselves and/or others when working on or near electrical installations

3.5

street furniture

plant or equipment on or adjacent to the public highway or other public place having a mains supply or indirectly connected to a mains supply

3.6

switch wire

conductor supplying only public lighting or other street furniture but forming an integral part of the DNO's system and controlled by the DNO

NOTE 1: Notwithstanding the use of the terms "road lighting" and "street lighting" in some other documents, the term "public lighting" is used in this document as being generally well understood and applicable to lighting in footpaths, etc as well as on roads.

NOTE 2: The term switch wire is also referred to as a "public lighting conductor" where the conductor carrying the public lighting supply is an integral part of the DNO's system, i.e. permanently energised 5th core conductor in a cable.

3.7

TN system

electrical system having one or more points of the source of energy directly earthed, the exposed conductive parts of the installation being connected to that point by protective conductors