

Distribution Code Consultation DCRP/21/04/PC

Engineering Recommendation (EREC) G12 Issue 4 Amendment 2 (2021)

Requirements for the Application of Protective Multiple Earthing to Low Voltage Networks

Target Audience:

The guidance in the Energy Networks Association (ENA) Engineering Recommendation (EREC) G12 Issue 4 Amendment 2 is intended primarily for those tasked with planning, design and installation of protective multiple earthing (PME) for application on DNO (Distribution Network Operator, including Independent Distribution Network Operator) overhead and underground low voltage distribution systems and to other public distribution systems connected to those systems under the Distribution Code.

This Engineering Recommendation sets out the requirements to be adopted when Protective Multiple Earthing (PME) is applied to DNO (Distribution Network Operator, including Independent Distribution Network Operator) overhead and underground low voltage distribution systems and to other public distribution systems connected to those systems under the Distribution Code. These requirements may be supplemented by each Company's own PME code of practice in respect of the detailed engineering and technical requirements of PME application. The requirements in this Engineering Recommendation aid compliance with certain aspects of the requirements of the Electricity Safety, Quality and Continuity Regulations 2002, as amended. The document also considers situations where PME should not normally be used.

Date Published: 9th April 2021

Deadline for responses: 17:00 7th May 2021

Summary:

EREC G12 provides recommendations for the application of protective multiple earthing (PME) to low voltage networks. EREC G12 is referenced in Annex 1 of the Distribution Code and is incorporated within the Distribution Code as part of the Code's technical requirements. Therefore any change to EREC G12 constitutes a change to the Distribution Code and has to be approved by the Distribution Code Review Panel (DCRP).

1. Introduction

The current version, EREC G12 Issue 4, came into effect in February 2014 followed by its first amendment which was implemented in January 2016.

Public policy supports a long term shift from internal combustion engine vehicles towards eco-friendly vehicles, most likely wholly electric vehicles (EV). It is highly likely that the rollout of infrastructure supporting the widespread use of electric vehicles will result in significant investment in electric vehicle technology and installation of on street devices to meet increasing demand.

An EV Charge Point Earthing Project Team was initiated by ENA in 2020 to update the guidance in EREC G12 Issue 4. This project team had expertise drawn from the ENA Earthing Coordination Group (ENA ECG), the ENA Low Carbon Technology Group (ENA LCT) and the ENA Safety Health and Environment Group (ENA SHE).

This edition of EREC G12 Issue 4 incorporates Amendment 2 which modifies the requirements for earthing of electric vehicle charging points connected to street electrical fixtures and takes into account the use of neutral disconnection devices.

2. Proposal

The ENA EV Charge Point Earthing Project Team who have been overseeing the work to revise the document, have now agreed on a final draft EREC G12 Issue 4 Amendment 2 and are now requesting comments from industry stakeholders.

The major technical revision elements included in EREC G12 Issue 4 Amendment 2 encompass the following changes:

- A new Section 6.2.16 added to include specific requirements for earthing of electric vehicle charging points connected to street electrical fixtures. This includes the use of “open neutral” disconnection devices.
- The Section numbers from 6.2.16 onwards have been updated.

The document has been imported into the latest ENA engineering document template. Any editorial changes necessary to comply with the conventions and formatting in the ENA engineering document template and Engineering Recommendation EREC G0 Rules, for structure, drafting and presentation of ENA engineering documents have been carried out.

Clause numbering of this EREC has changed significantly to conform to the latest ENA engineering document template.

Details of all technical, general and editorial amendments are available on request from the Operations Directorate of ENA.

A copy of the draft EREC G12 Issue 4 Amendment 2 and comment proforma are included in the consultation pack.

3. Applicable Distribution Code Objectives

The Applicable Distribution Code Objectives are to:

- a) permit the development, maintenance, and operation of an efficient, co-ordinated, and economical system for the distribution of electricity; and
- b) facilitate competition in the generation and supply of electricity; and
- c) efficiently discharge the obligations imposed upon distribution licensees by the distribution licences and comply with the Regulation and any relevant legally binding decision of the European Commission and/or the Agency for the Co-operation of Energy Regulators; and
- d) promote efficiency in the implementation and administration of the Distribution Code.

4. Consultation Questions

- Do you agree that the proposed amendments to EREC G12 Issue 4 Amendment 2 achieve the Distribution Code Objectives?
- Do you agree with the proposed text contained in EREC G12 Issue 4 Amendment 2, or do you have any alternatives to propose?

5. Next Steps

Responses to this consultation should be sent to the Distribution Code Review Panel Secretary at dcode@energynetworks.org by **17:00 7 May 2021** on the pro-forma provided expressly for the purpose, or via any other convenient means. The pro-forma can be found in the consultation pack. Responses after this date may not be considered.

6. Consultation Pack

The DCRP/21/04/PC Consultation pack can be found here - <http://www.dcode.org.uk/consultations/open-consultations/>

The consultation pack includes:

- This consultation paper
- EREC G12 Issue 4 Amendment 2 (clean)
- Proforma comment form

For more information, please contact:

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