



Engineering Recommendation S36

Issue 2 2018

Identification and recording of 'hot' sites - joint
procedure for Electricity Industry and
Communications Network Providers

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Amendments since publication

Issue	Date	Amendment
Issue 2	January, 2018	<p>This issue constitutes a minor revision of Issue 1 consisting predominantly of editorial amendments and a number of technical clarifications.</p> <p>The following principal changes have been completed.</p> <ul style="list-style-type: none">• The term 'British Telecom (BT)' replaced by 'Communications Network Provider (CNP)' throughout the document. This revised term refers to installers of communications equipment. References to Openreach are retained, where details are specific to that company.• Abbreviated terms have replaced frequently used terms in the document, for example, 'rise of earth potential' now written as 'ROEP'.• The abbreviation 'r.m.s.' has been added to all instances of voltage limits for ROEP, for example '430 V r.m.s.' <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 2018. 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 S36”, which replaces the previously used abbreviation “ER S36”.

This Engineering Recommendation supersedes ER S36 Issue 1 which is now withdrawn.

ER S36 Issue 1 was developed via a joint consultation between ENA Member Company representatives and British Telecom (BT) representatives. This revised issue is applicable to any Communications Network Provider (CNP), such as Openreach and Virgin Media.

This EREC sets out the requirements for the exchange of information between the Electricity Industry (EI) and CNPs, in respect of rise of earth potential at substations. The EREC discusses the identification of CNP infrastructure at or near substations, in particular, where the rise of earth potential (ROEP) will be in excess of the appropriate limits (430 V, 650 V, 1,150 V or 1,700 V r.m.s.).

The reader may refer to ENA Engineering Technical Report (ETR) 128 [N4] and ENA ETR 129 [N5], which assess the risks of working on CNP infrastructure and using equipment connected to CNP infrastructure, within a ROEP zone. Furthermore, EREC S37 [2], presents guidance for safe working on communication equipment.

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

NOTE: Commentary, explanation and general informative material is presented in smaller type, and does not constitute a normative element.

1 Scope

This EREC covers the procedure to be adopted by the Electricity Industry (EI) towards a Communications Network Provider (CNP) regarding notification of substations or plant which may experience a short time rise of earth potential (ROEP) in excess of 430 V or 650 V r.m.s, 50 Hz, as appropriate. It also covers the additional information which may be requested by a CNP if it is considered that their plant may be affected and the financial responsibility for any precautionary measures adopted. The EI in this context embraces generation, transmission and distribution electricity licensees.

This EREC does not cover mobile phone base stations (MPBSs) with antennae supported by electricity transmission towers. Such sites have specific safety aspects and ROEP levels which are outside the scope of this EREC. Guidance on MPBSs is provided in ENA EREC G78 [N6].

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.

[N1] Electricity Act 1989

[N2] Statutory Instrument 2003 No. 2553, *The Electronic Communications Code (Conditions and Restrictions) Regulations 2003*

[N3] ENA EREC S34, *A guide for assessing the rise of earth potential at substation sites*

[N4] ENA ETR 128, *Risk assessment for BT operators working in a ROEP zone*

[N5] ENA ETR 129, *ROEP risk assessment for third parties using equipment connected to BT lines*

[N6] ENA EREC G78, *Recommendations for low voltage supplies to mobile phone base stations with antennae on high voltage structures*

3 Terms and definitions

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

3.1

Electricity Industry (EI)

industry which encompasses the activities of electricity generation, transmission and distribution by the respective electricity company

NOTE: A distribution network operator (DNO) and transmission network operator (TNO) are both reflected by the term 'Electricity Industry'.