



Engineering Recommendation G87

Issue 2 - 2015

Guidelines for the Provision of Low Voltage
Connections to Multiple Occupancy Buildings

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CONTENTS

FOREWORD..... 5

1 SCOPE..... 6

2 DEFINITIONS 7

3 CONNECTION ARRANGEMENTS..... 10

 3.1 Services originating outside the building..... 11

 3.2 Services originating at an Intake Position 11

 3.3 Services originating at a point within a Building Network..... 11

 3.4 Firefighting and other standby supplies..... 11

 3.5 Responsibility for the Building Network..... 12

 3.6 Common Arrangements 13

4 INSTALLATION REQUIREMENTS..... 13

 4.1 Incoming DNO service 13

 4.1.1 Intake Position..... 13

 4.1.2 Cable entry to building..... 15

 4.2 Mains and Services within Multiple Occupancy Buildings..... 15

 4.3 Security of electricity supplies and prevention of illegal abstraction..... 16

 4.4 Equipment 16

 4.4.1 DNO equipment at Intake Position 16

 4.4.2 Building Network equipment..... 17

 4.4.3 Circuit identification 18

 4.4.4 Protection co-ordination 18

 4.5 ESQCR & BS 7671 18

 4.6 Work on BNO-owned and Customer-owned equipment 19

5 EARTHING..... 19

 5.1 Introduction..... 19

 5.2 Recommended practice 20

 5.3 Individual service options 20

 5.4 Earthing and main protective bonding conductors 21

 5.5 Position of PME earth electrode..... 21

6 METERING ARRANGEMENTS AND MPAN REGISTRATION..... 21

 6.1 Metering Arrangements..... 21

 6.1.1 Boundary Metering..... 21

 6.1.2 Grouped Metering at the Intake Position..... 22

 6.1.3 Grouped Metering remote from the Intake Position 22

 6.1.4 Dispersed Metering 22

 6.1.5 Difference Metering 22

 6.2 Role of MPANs..... 22

 6.2.1 Issuing Authority..... 22

 6.2.2 Premises supplied from a distribution network service 23

 6.2.3 Premises supplied from a building network service 23

 6.3 Creation of MPANs..... 24

 6.3.1 Criterion for a New MPAN 24

 6.3.2 Creation Process..... 24

 6.3.3 Plot to postal conversion 25

7 METERING REQUIREMENTS 25

 7.1 General..... 25

 7.2 Metering Location Requirements 26

 7.3 Accommodation Requirements 27

 7.4 Equipment Requirements – Whole Current Metering..... 27

| | | |
|---|---|----|
| 7.4.1 | Means of isolation | 27 |
| 7.4.2 | Meter tails | 28 |
| 7.5 | Equipment Requirements – CT Operated Metering | 29 |
| 7.5.1 | Means of isolation | 29 |
| 7.5.2 | Current transformers & test terminal blocks | 29 |
| APPENDIX A: CONNECTION ARRANGEMENT DRAWINGS..... | | 30 |
| APPENDIX B: SPATIAL REQUIREMENTS FOR WHOLE CURRENT METERING | | 38 |
| APPENDIX C: REFERENCES AND RELATED DOCUMENTS | | 41 |
| APPENDIX D: COLLABORATIVE NON-ENA MEMBER ORGANISATIONS | | 42 |
| APPENDIX E: INTERIM GUIDANCE ON PROCESS ISSUES | | 43 |
| APPENDIX F: USER GUIDE | | 46 |

FIGURES

| | | |
|-----------|--|----|
| Figure A1 | Typical arrangements for terraced-type Multiple Occupancy Building | 31 |
| Figure A2 | LV connection from DNO LV network (small development with Grouped Metering at Intake Position) | 32 |
| Figure A3 | LV connection from DNO LV network (larger development) | 33 |
| Figure A4 | LV connection from DNO LV network (Grouped Metering at Intake Position)..... | 34 |
| Figure A5 | BNO Network with a Grouped Metering arrangement..... | 35 |
| Figure A6 | BNO Network with a Dispersed Metering arrangement | 36 |
| Figure A7 | Difference Metering of BNO Network | 37 |
| Figure B1 | Metering Space Requirement (with cut-out) – 500x350mm | 40 |
| Figure B2 | Metering Space Requirement (no cut-out) – 400x400mm | 40 |

GUIDELINES FOR THE PROVISION OF LOW VOLTAGE CONNECTIONS TO MULTIPLE OCCUPANCY BUILDINGS

FOREWORD

This Engineering Recommendation (EREC) is published by the Energy Networks Association (ENA) and comes into effect from July, 2015. 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 G87”, which replaces the previously used abbreviation “ER G87”.

Arrangements for electricity connections to Premises that comprise whole or part of Multiple Occupancy Buildings have historically not been standardised between licensed electricity Distribution Network Operators (DNOs). This has led to difficulties for many of the parties involved in such developments, especially when working across different DNO areas. The introduction of smart metering, expansion of Competition in Connections, the advent of multi-utility providers, the emergence of new licensed and licence exempt distribution companies, a review of the Electricity Safety, Quality and Continuity Regulations (ESQCR) and the introduction of Part P of the Building Regulations¹ have all contributed to the need to establish common arrangements in this Engineering Recommendation (EREC).

In preparing this EREC, regard has been taken of the following:

- Equivalent arrangements for gas supplies, as set out in IGE/G/1 and BS 6891 which define network boundaries.
- Arrangements for network boundaries on water supplies.
- Balancing the long term needs of the DNO for suitable access to its assets installed inside the building whilst giving Developers design freedom within the constraints of Building Regulations and BS 7671.
- Customer, Building Network Operator and Meter Operator needs relating to access to meters and electrical isolation.
- That the Electricity Act (The Act) and the Utilities Act 2000 (as amended) enables parties other than licensed electricity distributors (such as Landlords/property owners) to own and operate electricity distribution networks and distribute electricity if they are exempt from holding a electricity distribution licence.
- The views of range of IDNO and non-DNO organisations. Appendix D contains a list of non-ENA member organisations.
- The arrangements to support the Electricity and Gas (Internal Markets) Regulations 2011.

The aim of this document is to clarify roles and responsibilities in the operation of distribution networks within buildings, and to establish fundamental requirements for the provision of such connections. This will in turn provide clarity for Developers and DNOs over the design, construction and ownership of the electrical infrastructure within Multiple Occupancy Buildings. Where there are alternatives shown in this document, individual DNOs should be consulted to ascertain their specific policy.

¹ Part P only applies in England and Wales. Different sets of Building Regulations apply in England and Wales, Scotland and Northern Ireland. In case of doubt, the appropriate authority should be contacted.

The term “shall” is used in this document where a mandatory requirement is referenced (e.g. compliance with BS7671) or where there is only one satisfactory option for safety or technical reasons.

A guide is provided in Appendix F to assist new users of this document.

1 SCOPE

This document applies to LV connections provided by licensed electricity distributors to:

- a) Individual Premises within a Multiple Occupancy Building; and
- b) A Multiple Occupancy Building treated as a single Premises.

The document does not consider the connections between multiple structures on a single site.

This scope includes the provision of connections to all customers, whether domestic, commercial or industrial and to communal parts of a building (i.e. Landlord’s connection).

The provision of these LV connections may also involve the provision of HV assets, such as a substation dedicated to the building, however this does not generally change the requirements for LV assets. For guidance on the requirements for on-site substations, please refer to EREC G81 and its DNO-specific appendices.

Any interface requirements between licensed distributors are covered by EREC G88, and will therefore not be discussed in this document. Interfaces between licensed distributors and either licence-exempt distributors or final customers are within scope.

This document excludes:

- a) Requirements for wiring within individual Premises, which is covered under BS7671 (the Wiring Regulations);
- b) Requirements for distribution networks neither owned nor operated by DNOs, which are covered by the general requirements of ESQCR;
- c) Issues within the scope of MOCOPA®, such as how Settlement metering is provided and connected, except to the degree that Multiple Occupancy Buildings create specific requirements; and
- d) Commercial arrangements.

There are a wide variety of existing connection arrangements to/within Multiple Occupancy Buildings. It is not reasonably practicable to bring these sites in line with this EREC. Instead, this document describes the typical arrangements for new connections and provides clarity on their safe and efficient construction and operation.

2 DEFINITIONS

For the purposes of this EREC the following definitions apply.

The definition of certain other terms which relate to electrical installations may be found in BS 7671.

Boundary Metering

Meters installed at the Connection Point for the purpose of measuring the flow of electricity between the DNO distribution system and the BNO Network. The meters may or may not be employed for Settlement purposes.

Building Network Operator (BNO)

The organisation that owns or operates the electricity distribution network within a Multiple Occupancy Building, between the Intake Position and Customers' Installations.

The BNO may be the DNO, another licensed distributor or a third party exempt from holding an electricity distribution licence (e.g. a facilities management company).

Broadly speaking, either:

- a) A licensed distributor may offer to adopt the Building Network, if they so desire and the assets meet the reasonable minimum standards of that licensee. In such cases the Building Network should be considered as an extension of that licensee's distribution network and part of the licensed distribution business; or
- b) The Building Network would be licence exempt and therefore generally treated by the DNO as any other Customer's Installation, subject to the detailed provisions of this EREC.

If the BNO and any related undertaking distributes electricity exceeding the limits for class exemption², the BNO needs an electricity distribution licence granted by the Gas and Electricity Markets Authority or a specific exemption granted by the Secretary of State. Where the BNO is required to have an electricity distribution licence, the BNO shall be responsible for issuing MPANs in respect of Premises connected to the BNO Network.

Building Network/BNO Network

The network comprising cables or bus-bars, switchgear / fusegear and any associated ancillary equipment between the Intake Position and Customer's Premises.

BNO Main

BNO cable (or busbar) which connects more than one Customer

BNO Service

BNO cable which connects a single Customer

BSC

The Balancing and Settlements Code. Contains the governance arrangements for electricity balancing and settlement in Great Britain.

² Regulations established pursuant to Section 5 of The Act describe the class exemptions where a person is exempt from the requirement to hold an electricity distribution licence. At the date of publication of this document, Statutory Instrument SI 2001, No. 3270, "The Electricity (Class Exemptions from the Requirement for a Licence) Order 2001" as amended from time to time, describe such class exemptions