

ENGINEERING STANDARD

GE-CIC-ES-0064

G81-PART 2 : MATERIAL SPECIFICATION

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| TITLE: Part 2: Material Specification for New Low Voltage Housing Installations | DOCUMENT NO: GE-CIC-ES-0064 |
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| 4 | Updates made to Appendix 3: Approved Manufacturers updated |

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CONTENTS

| | |
|---------------------------|----|
| FOREWORD..... | 3 |
| 1. SCOPE..... | 3 |
| 2. GENERAL | 4 |
| Appendix 1 | 5 |
| Appendix 2..... | 12 |
| Appendix 3..... | 13 |
| 3. DOCUMENT HISTORY | 18 |

FOREWORD

This document forms Appendix A to Energy Networks Association (ENA) Engineering Recommendation (EREC) G81 - Part 2: Materials Specification, " Framework **for new low voltage housing installations**" on behalf of GTC and should be read in conjunction with that document.

- GTC Housing Development Framework Appendices relating to Materials Specification, Installation Records and Cable Recording Techniques.
- G81 Part 1 Design and Planning (GE-CIC-ES-0063) – New Low Voltage Housing Development Installations
- G81 Part 2 Material Specification (GE-CIC-ES-0064) – New Low Voltage Housing Development Installations (This Document)
- G81 Part 3 & 6 Installation and Records (GE-CIC-ES-0068) – New Low Voltage Housing Development Installations & Industrial and Commercial Underground Connections
- Design Policy HV & LV (GE-DPR-ES-0119)

This document contains a summary of the information contained in GTC product specification. Please note that GTC is unable to provide copies of external documentation, standards and specifications referenced in this document, but copies may be obtained from the relevant issuing body (such as the British Standards Institution (BSI) or Energy Networks Association). Appendix A of this document details assessed products by reference, description and supplier.

1. SCOPE

This appendix to ENA EREC G81 Part 2 covers the materials specification for new industrial and commercial connections to the electricity distribution network of GTC comprised of licenses Energy Network Company (ENC) and Independent Power Network Company (IPNL).

For the purpose of this document, where 'Electricity Networks Manager' is referenced, this covers any of the following;

- Electricity Networks Director
- Head of Electricity Asset Management
- Head of Electricity Operations
- Electricity Asset Manager

2. GENERAL

- 2.1 This document provides details of GTC's approved range of cables, plant, equipment and auxiliary items used to construct distribution assets for connection to GTC's distribution network. Only equipment approved by GTC and listed in this document shall be used to construct electricity networks, substations and services for adoption by GTC in its distribution networks.
- 2.2 For all new connections work, the approved installer (ICP – Independent Connection Provider) shall shall work in line with GTC G81 Standards
- 2.3 Where GTC's requirements are not specified in this document, the approved installer shall liaise with the Engineer, to gain approval from GTC's Electricity Networks Manager for its suggested equipment, prior to purchasing the equipment.
- 2.4 This document will be updated on a regular basis when new equipment is approved by GTC's Electricity Networks Manager. Further details will also be added as requirements for further information on the range of equipment used is identified.



APPENDIX 1

LOW VOLTAGE EQUIPMENT INCLUDING UNDERGROUND CABLES, JOINTS, LINK BOXES, TERMINATIONS AND FUSES

Approved Manufacturers :-

HV Cables – Including LS0H (Low Smoke Zero Halogen) – Prysmian UK, NKT (Denmark), Tratos (Italy),Telefonika (Poland), Cabelte (Portugal), Hellenic (Greece), Nexans (Greece) and Solidal (Portugal).

LV Cables – Including LS0H – Prysmian UK, NKT (Denmark), Hellenic (Greece) Tratos (Italy),Telefonika (Poland) and Nexans (Greece)

LV Service Cables – NKT (Denmark), Cabelte (Portugal) and Tratos (Italy) and Telefonika (Poland).

Jointing Compound – Prysmian UK, Sicame / WT Henley (GTC Version/ 2 Part Polyurethane)

Jointing Kits – Sicame / WT Henley and TE Connectivity

| S.No | Description | Material Supplier |
|------|--|---|
| 1 | Branch Joint- 185mm ² (No Resin) | Utility Power Services / Wolesley / Jointing Technologies |
| 2 | Branch Joint - 300mm ² (No Resin) | |
| 3 | Mains Branch Joint 95mm ² | |
| 4 | Branch Joint, inc Resin - 95mm ² (No Resin) | |
| 5 | 15 Way MSDB ST LH Incoming Mechanical Connector | |
| 6 | 15 Way MSDB ST RH Incoming Mechanical Connector | |
| 7 | 24 Way MSDB ST RH Incoming Mechanical Connector | |
| 8 | 30 Way MSDB ST LH Incoming Mechanical Connector | |
| 9 | 30 Way MSDB ST RH Incoming Mechanical Connector | |
| 10 | MSDB 1J 45 Way Double Door C/W 100A HSCO | |
| 11 | 45 Way MSDB ST LH Incoming Mechanical Connector | |
| 12 | MSDB 2J 24 Way RH | |
| 13 | 2 Way J Type 30 Way MSDB LH Incoming Mechanical Connector | |
| 14 | 374LSF01 2 Bolt LS0H Cable Cleat | |
| 15 | Link Box Fuse Handle | |
| 16 | 10-56FR Cable Cleat (Pack of 100) | |
| 17 | 10-98FR Cable Cleat (Pack of 100) | |
| 18 | Cable Cleats for LS0H Cable (Pack of 100) | |
| 19 | 300mm ² Waveform Cold Shrink Shorting End Caps | |
| 20 | 95-185mm ² Waveform Cold Shrink Shorting End Caps | |
| 21 | 95mm ² Triplex Cold Shrink Shorting End Caps | |
| 22 | 185-300mm ² Pot End Kit | |
| 23 | 185-300mm ² Pot End Kit | |
| 24 | 95mm ² Pot End Kit | |
| 25 | 95mm ² Pot End Kit | |
| 26 | Single Phase 100amp House Service Kit CNE | |
| 27 | Single Phase 100amp SNE Riser Kit (c/w Red Link) | |
| 28 | Meter Board Insulators | |
| 29 | Double Pole Street Light Kit – Route Of Main NPG/ENW | |



| | |
|----|---|
| 30 | Double Pole Street Light Kit - Looping Multi Column |
| 31 | Street Lighting Cut Out Kit |

| S.No | Description | Material Supplier |
|------|---|---|
| 32 | Brass S/O Neutral Lug 185/300WF 12mm Hole | Utility Power Services / Wolesley / Jointing Technologies |
| 33 | Brass S/O Neutral Lug 185/300WF 16mm Hole | |
| 34 | Brass S/O Neutral Lug 95WF 12mm Hole | |
| 35 | Brass S/O Neutral LUG 95WF 16mm Hole | |
| 36 | 35mm ² CNE Service Cable - 100m Drum | |
| 37 | Single Phase 35mm ² SNE LS0H Service Cable - 100m Drum | |
| 38 | 35mm ² Split Concentric Cable LS0H - IDNO ONLY | |
| 39 | 3 x 185mm ² Waveform | |
| 40 | 3 x 300mm ² Waveform | |
| 41 | 3 x 35mm ² Al/Cu Plain Concentric LV Cable | |
| 42 | 3 x 35mm ² Al/Cu Split Concentric LV Cable | |
| 43 | 3 x 35mm ² 3 Core Split Concentric LV LS0H Cable | |
| 44 | 3 x 95mm ² Waveform | |
| 45 | 3 x 95mm ² Al/Cu (CNE) LS0H Waveform Cable | |
| 46 | 4 x 95mm ² Waveform LS0H | |
| 47 | 4 x 95mm ² Waveform | |
| 48 | 4 x 185mm ² Waveform | |
| 49 | 4 x 300mm ² Waveform | |
| 50 | Joint LV Main/Service Single Mod >185mm ² | |
| 51 | Joint LV Main/Service Double Mod >185 mm ² | |
| 52 | Joint LV Main/Service Single Mod >300 mm ² | |
| 53 | Joint LV Main/Service Double Mod >300 mm ² | |
| 54 | Service Branch Joint 35mm ² to 4mm ² SBJ2/EDF | |
| 55 | 3 Phase Service Branch Joint | |
| 56 | LV main pot end >300mm (heat shrink) | |
| 57 | 35mm ² Single Phase CNE Service Heat Shrink Pot End | |
| 58 | Heavy Duty Cut Out 200Amp | |
| 59 | Heavy Duty Cut Out 400Amp | |
| 60 | Heavy Duty Cut Out 600Amp | |
| 61 | 2 Way Link Box TYCO Mark 2 Untailed | |
| 62 | 2 Way Link Box 2 Way Tailed EDF | |
| 63 | 4 Way Link Box 4 Way Tailed EDF | |
| 64 | Lucy Electric Rising Surface Box 10 W GF | |
| 65 | Meter Board Fire Proof NEDL/YEDL | |
| 66 | 3 Phase Meter Board - Fire Proof NEDL/YEDL | |
| 67 | 2 Part Resin | |
| 68 | Service Joint 95-185mm ² | |
| 69 | 300mm ² Mains Service Branch Joint | |
| 70 | 95mm ² Mains Service Joint | |
| 71 | Single Phase Service To Service Branch Joint, inc Resin (2P) -35mm ² | |



| | | |
|----|---|--|
| 72 | Single Phase Service To Service Straight Joint, inc Resin (2P) -35mm ² | |
|----|---|--|

| S.No | Description | Material Supplier |
|------|--|--|
| 73 | Branch Joint, inc Resin (2p) - 35mm ² | Utility Power Services / Wolesley / Jointing Technologies |
| 74 | Service Straight Joint, inc Resin (2P) -35mm ² | |
| 75 | Branch Joint, inc Resin (2p) - 185mm ² | |
| 76 | Branch Joint, inc Resin (2p) - 300mm ² | |
| 77 | Branch Joint, inc Resin (2p) - 95mm ² | |
| 78 | 95mm ² Mains Straight Joint (2P) | |
| 79 | 300mm ² 3-Core Waveform Branch Joint | |
| 80 | 3-35mm ² Mains Branch Joint (With 2 Additional Connectors) | |
| 81 | 35mm ² Single Phase CNE Service Pot End | |
| 82 | Stop End Kit, inc Resin (2P) - 95/185mm ² | |
| 83 | Service Joint, inc Resin (2P) - 300mm ² | |
| 84 | Service Joint, inc Resin (2P) - 95/185mm ² | |
| 85 | Straight Joint, inc Resin (2P) - 185mm ² | |
| 86 | Straight Joint, inc Resin (2P) - 300mm ² | |
| 87 | Straight Joint, inc Resin (2P) - 95mm ² | |
| 88 | Straight Joint, C/W Service Connector, inc Resin (2P) - 185mm ² | |
| 89 | 35mm ² Single Phase CNE – Single Phase CNE Service | |
| 90 | 4-35mm ² Three Phase CNE - Three Phase CNE Service | |
| 91 | 35mm ² Single Phase CNE- Service Stop End Joint | |
| 92 | 185mm ² to 300mm ² Waveform Stop End Kit | |
| 93 | 3 Core 35mm ² Waveform Pot End | |
| 94 | 95mm ² /185mm ² Cold Shrink End Caps | |
| 95 | Mains Straight Joint 300mm ² | |
| 96 | Straight Joint - 300mm ² (No Resin) | |
| 97 | Straight Joint, - 95mm ² (No Resin) | |
| 98 | 35mm ² Single Phase CNE - Single Phase CNE Service | |
| 99 | Feeder Pillar Fuse 100 Amps 82mm Fixings | |
| 100 | J [Type] 100 Amp Fuse 92mm Centres | |
| 101 | Feeder Pillar Fuse 160 Amps 82mm Fixings | |
| 102 | Feeder Pillar Fuse 160 Amps 92mm Fixings | |
| 103 | Feeder Pillar Fuse 200 Amps 82mm Fixings | |
| 104 | Feeder Pillar Fuse 200 Amps 92mm Fixings | |
| 105 | Feeder Pillar Fuse 250 Amps 82mm Fixings | |
| 106 | Feeder Pillar Fuse 250 Amps 92mm Fixings | |
| 107 | House Service Fuse 25 Amps Small Diameter | |
| 108 | Feeder Pillar Fuse 315 Amps 82mm Fixings | |
| 109 | Feeder Pillar Fuse 315 Amps 92mm Fixings | |
| 110 | Feeder Pillar Fuse 355 Amps 92mm Fixings | |

| | |
|-----|---|
| 111 | Feeder Pillar Fuse 400 Amps 82mm Fixings |
| 112 | Feeder Pillar Fuse 400 Amps 92mm Fixings |
| 113 | 92mm Solid Links (Set of 3) |
| 114 | J(Type) 500 Amp Fuse 92mm Centres |
| 115 | 120mm ² Green/Yellow Earth Cable |
| 116 | 120mm ² Bare Copper Earth Wire |
| 117 | 25mm ² AL/CU Plain Concentric LV Cable |
| 118 | 35mm ² AL/CU Plain Concentric LV Cable |
| 119 | 70mm ² Bare Copper Earth Wire Soft Drawn |
| 120 | 70mm ² Green/Yellow Earth Cable |
| 121 | 70mm ² to 120mm ² Waveform Stop End Kit |
| 122 | Neutral Earth Connector - Brass |
| 123 | Earth Terminal Block - 5 Way |
| 124 | CT Chamber M/S 540 x 520 x 230mm |
| 125 | Meter Box Key |
| 126 | Lucy Electric CT Chamber C/W Integrated 200 Amp Heavy Duty Cut Out (CTCO) |
| 127 | Lucy Electric CT Chamber C/W Integrated 400 Amp Heavy Duty Cut Out (CTCO) |
| 128 | Meter Box Electric - M00022 |
| 129 | Meter Box Door |
| 130 | Slimline Meter Box - Electric |
| 131 | Electric Surface M-Box M06004 |
| 132 | Meter Box Hockey Stick - White |
| 133 | Meter Box Hockey Stick cleat |
| 134 | Electric Hockey Stick – Black |
| 135 | 16mm ² x1200mm ² CU Bond Earth Rod |
| 136 | 16mm ² Driving Stud |
| 137 | 16mm ² Earth Rod Coupling |
| 138 | 19mm ² x1200mm ² CU Bond Earth Rod |
| 139 | 19mm ² Earth Rod Coupling |
| 140 | 19mm ² (Bespoke) Driving Stud |
| 141 | 19mm ² U-Bolt M10 Lug Clamp |
| 142 | Rod To Cable Clamp Type G 19mm Rod 6-70mm |
| 143 | Rod To Tape Clamp 16mm Rod Max 26 x 12mm Tape |
| 144 | Rod To Cable Clamp Type GUV 16mm ² Rod 150-300mm ² |
| 145 | Rod To Cable Clamp Type GUV 16mm ² Rod 16-150mm ² |
| 146 | Rod To Cable Clamp Type G 16mm ² Rod 6-70mm ² |
| 147 | Lightweight Inspection Pit |
| 148 | Concrete Inspection Pit |
| 149 | Square Tape Clamp - 4 Way/Cross |
| 150 | DC Clip - Plastic 25 x 3mm ² Tape |



| S.No | Description | Material Supplier |
|------|--|---|
| 151 | Copper DC Clip 25 x 3mm ² Tape | Utility Power Services / Wolesley / Jointing Technologies |
| 152 | Single Way Earth Bar, Disconnecting Link | |
| 153 | 6 Way Earth Bar | |
| 154 | 6 Way Earth Bar with Single Disconnecting Link | |
| 155 | 8 Way Earth Bar | |
| 156 | Braid Bonds (200mm Hole Centres) | |
| 157 | Braid Bonds (400mm Hole Centres) | |
| 158 | Insulator M10 c/w Studs and Nuts | |
| 159 | Bentonite 25Kg Sack | |
| 160 | Denso Tape 50mmx10m | |
| 161 | Self Locking Cleat 40x6mm Tape | |
| 162 | Self Locking Cleat 40x4mm Tape | |
| 163 | 40 x 6mm Aluminium Tape (50m Coil) Per Meter | |
| 164 | 25 x 6mm Bare Copper Tape (40m) | |
| 165 | 40 x 4mm Bare Copper Tape (30m) | |
| 166 | 16mm ² Bare Stranded Copper Cable (50m) | |
| 167 | 70mm ² Bare Stranded Copper Cable (50m) | |
| 168 | 70mm ² Green/Yellow Stranded Copper Cable (50m) | |
| 169 | 120mm ² Bare Stranded Copper Cable (50m) | |
| 170 | 120mm ² Green/Yellow Stranded Copper Cable (50m) | |
| 171 | 25 x 4mm Bare Copper Tape (50m) | |
| 172 | 16mm ² Green/Yellow Stranded Copper Cable (50m) | |
| 173 | 95mm ² 3 Core LS0H Orange Cable | |
| 174 | 1 x 95mm ² XLPEB 11kV WST 35H EQ Orange LS0H | |
| 175 | 1 x 185mm ² XLPEB 11kV WST 35H EQ Orange LS0H | |
| 176 | 1 x 300mm ² XLPEB 11kV WST 35H EQ Orange LS0H | |
| 177 | 95mm ² Waveform Mains Straight Joint (5.4ltr) | |
| 178 | 185mm ² Waveform Mains Straight Joint (8.6ltr) | |
| 179 | 300mm ² Waveform Mains Straight Joint (10.6ltr) | |
| 180 | 95mm ² Waveform Mains Branch Joint (6.7ltr) | |
| 181 | 185mm ² Waveform Mains Branch Joint (14.4ltr) | |
| 182 | 300mm ² Waveform Mains Branch Joint (19.5ltr) | |
| 183 | 95-185mm ² Mains/Service Branch Single Phase (8ltr) | |
| 184 | 185-300mm ² Mains/Service Branch Single Phase (10ltr) | |
| 185 | 95-185mm ² Mains/Service Branch Three Phase (8ltr) | |
| 186 | 185-300mm ² Mains/Service Branch Three Phase (10ltr) | |
| 187 | 95mm ² Waveform Mains Pot End - Resin Filled (4ltr) | |
| 188 | 185-300mm ² Waveform Mains Pot End - Resin Filled | |
| 189 | 95mm ² Waveform Mains Pot End – Heatshrink | |
| 190 | 185-300mm ² Waveform Mains Pot End – Heatshrink | |



| S.No | Description | Material Supplier |
|------|---|---|
| 191 | 35mm ² CNE Straight Joint Single Phase | Utility Power Services / Wolesley / Jointing Technologies |
| 192 | 35mm ² CNE Branch Joint Single Phase | |
| 193 | 4-35mm ² CNE Straight Joint Three Phase | |
| 194 | 4-35mm ² CNE Branch Joint Three Phase | |
| 195 | 35mm ² CNE Heatshrink Single Phase Stop End | |
| 196 | 4-35mm ² CNE Heatshrink Three Phase Stop End | |
| 197 | 95mm ² Waveform Mains Straight Joint | |
| 198 | 185mm ² Waveform Mains Straight Joint | |
| 199 | Lucy Electric MSDB 15 Way 2J Left Hand Double Door 3 Core Bottom Neutral | |
| 200 | TYCO/CE (56168) 4 Way CNE LV Underground Link Box | |



APPENDIX 2

HIGH VOLTAGE EQUIPMENT INCLUDING UNDERGROUND CABLES, JOINTS & TERMINATIONS

BUUK accept the use of 11kV Aluminium sheathed cable in the UK Power Networks Areas, to UK Power Networks Standard where anticipated fault levels can be satisfied.

| S.No | Description | Material Supplier |
|------|--|---|
| 201 | 1 x 300mm ² (B) WB EQ CWS (35 SZ WB) MDPE Red 11kV | Utility Power Services / Wolesley / Jointing Technologies |
| 202 | 3 x 1 x 300mm ² CU XLPE CU/W (70) MDPE 11kV | |
| 203 | 3 x 1 x 95mm ² AI XLPE CU/W (35) MDPE 11kV | |
| 204 | 3 x 1 x 185mm ² AI XLPE CU/W (70) MDPE 11kV | |
| 205 | 3 x 1 x 300mm ² AI XLPE CU/W (70) MDPE 11kV | |
| 206 | 3 x 1 x 300mm ² CU XLPE CU/W (25) MDPE 11kV | |
| 207 | 3 x 1 x 70mm ² SAC XLPE CU/W (25) MDPE 11kV | |
| 208 | 3 x 1 x 95mm ² SAC XLPE CU/W (25) MDPE 11kV | |
| 209 | 1 x 95mm ² (B) WB EQ CWS (35 SZ WB) MDPE Red 11kV | |
| 210 | 1 x 185mm ² (B) WB EQ CWS (35 SZ WB) MDPE Red 11kV | |
| 211 | 3 x 1 x 95mm ² XLPE WST EW CU/W (35) WST MDPE 11kV | |
| 212 | 3 x 1 x 95mm ² XLPE WST CU/W (35) WST MDPE 11kV | |
| 213 | 3 x 1 x 185mm ² SAC XLPE CU/W (25) MDPE 11kV | |
| 214 | 3 x 1 x 185mm ² XLPE WST EW CU/W (35) WST MDPE 11kV | |
| 215 | 3 x 1 x 185mm ² XLPE WST CU/W (35) WST MDPE 11kV | |
| 216 | 3 x 1 x 300mm ² SAC XLPE CU/W (25) MDPE 11kV | |
| 217 | 3 x 1 x 300mm ² XLPE WST EW CU/W (35) WST MDPE 11kV | |
| 218 | 3 x 1 x 300mm ² XLPE WST CU/W (35) WST MDPE 11kV | |
| 219 | 3 x 95mm ² XLPE CU/W (70) + EQ Red MDPE 11kV | |
| 220 | 3 x 185mm ² XLPE CU/W (95) + EQ Red MDPE 11kV | |
| 221 | 3 x 300mm ² XLPE CU/W (95) + EQ Red MDPE 11kV | |
| 222 | 3 x 1 x 95mm ² EPR CU/W (35) MDPE 11kV | |
| 223 | 3 x 1 x 185mm ² EPR CU/W (35) MDPE 11kV | |
| 224 | 3 x 1 x 300mm ² EPR CU/W (35) MDPE 11kV | |
| 225 | 70-95mm ² AL Triplex Termination Kit | |
| 226 | 185-300mm ² AL Triplex Termination Kit | |
| 227 | 300mm ² CU Triplex Termination Kit | |
| 228 | Size Y 3 Core Gland (Top Hat) upto 300mm ² | |
| 229 | MV 3 Core Breakout 95-300mm ² | |
| 230 | 70mm ² AL H/S Triplex Straight Joint – One Per Phase | |
| 231 | 95-300mm ² AL H/S Triplex Straight Joint – One Per Phase | |
| 232 | 300mm ² CU Triplex Straight Joint – One Per Phase | |
| 233 | 70-185mm ² H/S Triplex Branch Joint - One Per Phase | |
| 234 | 185-30mm ² H/S Triplex Branch Joint - One Per Phase | |
| 235 | 300mm ² Main 95mm Branch H/S Triplex Branch Joint - One Per Phase | |



APPENDIX 3

DISTRIBUTION AND PRIMARY SUBSTATIONS - PLANT, EQUIPMENT & HOUSING

| S.No | Description | Approved Suppliers | Comments |
|------|---|--|--|
| 236 | Distribution Transformer 315/500/800/1000/1500*kVA 11000/433V Tier 2 ECO Losses ONAN Mineral Oil / MIDEL Fluid Filled *Subject to ENA ER P2/8 Compliance | Schneider Electric Leeds - UK / Turkey | Approved Package Substation Assembly Leeds |
| | | Kyte Powertech Ireland | Approved Package Substation Assembly Via Lucy Electric - Thame |
| | | Toshiba – India (Via Wilsons Power Solutions Leeds - UK) | Approved Package Substation Assembly Via Lucy Electric – Thame and Schneider Electric - Leeds |
| | | EFACEC Energia Portugal | Approved Package Substation Assembly Via Lucy Electric - Thame |
| | | Winder Power Leeds – UK | Approved Package Substation Assembly Via Schneider Electric - Leeds |
| | | Green Transfo Turkey | Approved Package Substation Assembly Via Schneider Electric - Leeds |
| | | Emirates Transformers and Switchgear Dubai | Approved Package Substation Assembly via Lucy Electric - Thame |
| 237 | Distribution Transformer 1000/1250/1500/1600kVA 22000/433V Tier 2 ECO Losses ONAN Mineral Oil / MIDEL Fluid Filled *Subject to ENA ER P2/8 Compliance | Schneider Electric Leeds - UK / Turkey | |
| | | Toshiba – India (Via Wilsons Power Solutions Leeds - UK) | |
| | | Winder Power Leeds – UK | |
| | | Green Transfo Turkey | |
| | | Brush Power Loughborough - UK | Approved MR VBO OLTC |
| 238 | Power Transformer 33/11kV 7.5/15MVA CER/CMR 33/11kV 12/24MVA CER/CMR 33/11kV 15/30MVA CER/CMR 33/11kV 20/40MVA CER/CMR | Schneider Electric Turkey | Facility now owned/operated by Green Transfo (Cahors Group) |
| | | Hitachi Energy Turkey and Italy | >15/30MVA From Turkey - 20/40MVA From Italy |
| | | Toshiba – India (Via Wilsons Power Solutions Leeds - UK) | |
| | | Winder Power Leeds - UK | Approved MR VBO OLTC |
| | | Green Transfo Turkey | Facility previously owned by Schneider Electric |
| | | | |
| 239 | 36kV Indoor Extensible | Schneider Electric | WS |



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|--------------------------|--------------------------------|---|
| Gas Insulated Switchgear | Regensburg - Germany | 1250/2000/2500A Single/Double Busbar |
| | Siemens Frankfurt - Germany | NX+ 1250/2000A Single/Double Busbar |
| | ABB Ratingen - Germany | ZX1.2, ZX2.0 1250/2000/2500A Single/Double Busbar |

| | | | |
|-----|--|--|---|
| 240 | 24kV Indoor RMU Vacuum / Gas Insulated Switchgear | ABB Norway | Safering – SF6 SF6 630A 20kA |
| | | Lucy Electric Thame | Sabre VRN24 |
| | | Eaton Holland | Xiria - Vacuum 630A 20kA |
| 241 | 11kV Indoor Extensible Air Insulated Switchgear | Brush Power Blackwood – UK | Eclipse and Quantum 630/1250/2000A Single/Double Busbar |
| | | Schneider Electric Leeds – UK | GENIE EVO 630/1250/2000A Single/Double Busbar |
| 242 | 11kV Outdoor RMU Gas Insulated Switchgear (11kV Oil Filled Switchgear not accepted on GTC Network) | Schneider Electric Leeds – UK | RN2c/d 200/630A 21kA |
| | | Lucy Electric Jebel Ali - Dubai | Sabre 200/630A 21kA |
| 243 | 11kV Outdoor Extensible Gas Insulated Switchgear | Schneider Electric Leeds – UK | Ringmaster Range CE2/CE6/SE6/RE2/RE6 |
| | | Lucy Electric Jebel Ali - Dubai | Sabre 200/630A 21kA |
| 244 | 11kV Outdoor Metering/NVD Protection | Schneider Electric Leeds - UK | MU2/MU6 |
| | | Lucy Electric Jebel Ali - Dubai | AMU2/AMU4 (MIDEL/Oil Filled) |
| 245 | 433V Low Voltage Transformer Mounted Take Off Cabinets | Schneider Electric Scarborough – UK | Shielded And SAIF Outgoing Ways Approved |
| | | Lucy Electric Thame – UK | ACULOK Approved For Transformer Mounted Cabinets |
| 246 | 433V Low Voltage Freestanding/Wall Mounted Fusepillars/Boards And Cabinets – ACBS/MCCBS | Schneider Electric Scarborough – UK | Shielded And SAIF Outgoing Ways Approved |
| 247 | 433V Low Voltage Multi Service Distribution Boards (Any weight reductions to facilitate safe handling must be limited to mechanical components – doors / fusehandles / gland plates etc) | Lucy Electric Thame – UK | MSDB – 10/12/18/24/36/48 Outgoing Ways |
| | | Schneider Electric Scarborough – UK | MODE – 12/18/24/36/48 Outgoing Ways |
| | | BEMCO Glasgow – UK | Via Distribution Channel |
| | | Ryefield Electric Cheshunt – UK | Via Distribution Channel |
| 248 | Combined Low Voltage CT Metering Chamber And Heavy Duty Cut Out (CTCO) | Lucy Electric Thame – UK | Via Utility Power Services |
| | | Schneider Electric Scarborough – UK | Direct with Supplier or Via Distribution Channel |
| 249 | Heavy Duty Cut Out (HDCO) | Lucy Electric Thame – UK | Via Utility Power Services |
| 250 | Street Lighting Cut Out Kit | Lucy Electric Thame – UK | Via Utility Power Services |
| 251 | Street Lighting Cut Out | Lucy Electric Thame – UK | Via Utility Power Services |



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| 252 | HV Protection Relays (Generic Identification of Approved Suppliers – Formal Approval to be obtained from Asset Management for specific equipment type prior to installation on GTC Network) | Schneider Electric Leeds – UK | Micom VIP300 (11kV RMU) |
| | | GE Grid Solutions Boulogne - France | Micom Agile |
| | | Siemens Berlin - Germany | Argus 196 Siprotec4 |
| 253 | Low Voltage ACB/MCCB Protection Devices | Schneider Electric Scarborough – UK | Micrologic 2.0 (MCCB) Micrologic 5.0 (ACB) Micrologic 6.0 (ACB REF) |
| | | Terasaki Electric Company Osaka – Japan | Tembrake2 – MCCB Tempower2 – ACB |
| 254 | Low Voltage Power Meters/MDI | Schneider Electric Scarborough – UK | PM5110 |
| | | Rayleigh Instruments Chelmsford – UK | Nemo 72b |
| 255 | GRP Housing with Locking Shroud To GTC/Nominated DNO Specification | Morgan Marine Llandybie – UK | GTC Substation Specification GTC-E-SS-0002 |
| | | Envico Engineering Swansea – UK | GTC Substation Specification GTC-E-SS-0002 |
| | | Kingsley Plastics Winkleigh – UK | GTC Substation Specification GTC-E-SS-0002 |
| | | NPS Group Bradford - UK | GTC Substation Specification GTC-E-SS-0002 |
| 256 | Housing Doors (with lock shroud)/ Vents | Bradbury Group Scunthorpe- UK | Metal Security Doors/Vents |
| | | Sunray Ashford – UK | Metal Security Doors/Vents |
| | | TS Designs High Wycombe – UK | Metal Security Doors/Vents |
| | | Wolesley Chesterfield - UK | Metal Security Doors/Vents |
| 257 | GRP Trench covers for distribution substations | Wolesley Chesterfield – UK | |
| | | Sunray Ashford – UK | |
| 258 | Substation Floodgates | JT Atkinson Nationwide - UK | |
| 259 | Duct Knockouts | Roxtec Runcorn – UK | |
| 260 | Duct Seals | Roxtec Runcorn - UK | Other alternative only via approval from Asset Management |
| | | Filoform UK Reading - UK | |



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| 261 | 11kV Distribution Transformer Package Substation Assembly | Schneider Electric Leeds - UK | Approved to assemble Package Substations utilising Wilson Power Solutions (Toshiba), Winder Power, Green Transfo and Schneider Electric Distribution Transformers |
| | | Lucy Electric Thame – UK | Approved to assemble Package Substations utilising Wilson Power Solutions (Toshiba), Kyte Powertech, Efacec Distribution Transformers and Emirates Transformers and Switchgear |
| | | Bowers Electrical Leeds – UK | Approved to assemble Package Substations utilising Wilson Power Solutions (Toshiba), Kyte Powertech and Efacec Distribution Transformers |
| 262 | HV Monoblock | Mekufa Ltd Turkey | 11kV RMU Bushing Assembly accepted on GTC Network Transformers |
| | | Kaizan Switchgear Products India | 11kV RMU Bushing Assembly accepted on GTC Network Transformers |
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3. DOCUMENT HISTORY

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|---|---------------|---|
| 1 | November 2014 | Issued |
| 1 | May 2018 | Document reviewed, no changes required so revision number retained |
| 2 | April 2022 | <p>Sec 1 Scope updated</p> <p>Appendix 1</p> <ul style="list-style-type: none"> - Approved Manufacturers Updated and Part Numbers removed <p>Appendix 2</p> <ul style="list-style-type: none"> - Reference to 11kV Aluminium Sheathed Cable added and Part Numbers removed <p>Appendix 3</p> <ul style="list-style-type: none"> - Approved Manufacturers updated |
| 3 | July 2023 | <p>Appendix 1</p> <ul style="list-style-type: none"> - Approved Manufacturers updated. <p>Appendix 3</p> <ul style="list-style-type: none"> - Approved Manufacturers updated |
| 4 | July 2024 | <p>Updates made to Appendix 3:</p> <p>Approved Manufacturers updated</p> |