

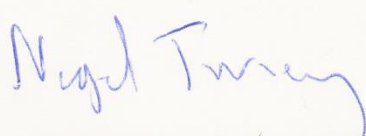
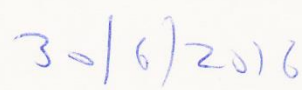
## Company Directive

### POLICY DOCUMENT: CA2/1

#### Relating to the cable to be used on the 11kV system

##### Policy Summary

This document details the Company requirements for the type of cable to be used on the Western Power Distribution 11kV distribution system.

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<b>Implementation Date:</b>	<b>June 2016</b>
<b>Approved by:</b>	 <b>Network Strategy and Innovation Manager</b>
<b>Date:</b>	

***All references to Western Power Distribution or WPD must be read as National Grid Electricity Distribution or NGED***

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## **IMPLEMENTATION PLAN**

### **Introduction**

Minor changes have been made to ensure the document covers the whole of WPD area and covers all cable sizes currently used.

### **Main Changes**

Minor changes have been made to ensure the document covers the whole of WPD area. Losses strategy added to the document.

### **Impact of Changes**

None.

### **Implementation Actions**

Team managers to disseminate the information to their respective 11kV staff.

### **Implementation Timetable**

This Policy document can be implemented with immediate effect.

## REVISION HISTORY

Document Revision & Review Table		
Date	Comments	Author
May 2022	<ul style="list-style-type: none"><li>Document reviewed – no changes made.</li></ul>	Richard Summers
May 2019	<ul style="list-style-type: none"><li>Document reviewed – no changes made.</li></ul>	Richard Summers
June 2016	<ul style="list-style-type: none"><li>Minor changes have been made to ensure the document covers the whole of WPD area and covers all cable sizes currently used.</li><li>Losses strategy added to the document.</li></ul>	Peter White

## **1.0 INTRODUCTION**

This document describes the type of cable to be used on the Western Power Distribution plc's 11kV distribution networks.

## **2.0 POLICY FOR 11kV UNDERGROUND DISTRIBUTION CABLES**

6,350/11,000 Volt single core cables, that are then laid up in a triplex formation. The cables shall be constructed with a solid circular aluminium phase conductor of 95, 185 & 300mm<sup>2</sup>. In addition a stranded copper 300 and 400mm<sup>2</sup> phase conductor is required, a semi-conducting conductor screen, EPR insulation, a semi-conducting easy strip insulation screen, with 35mm<sup>2</sup> copper wire screen wires, a phase marker tape with a plastic lay-up tape and a medium density polyethylene (MDPE) coloured red oversheath, to British Standard Specification (BS) BS 7870 Part 4.10, Table 2 for the aluminium conductors and Table 1 for the copper conductors.

As from 1st March 2015 WPD have changed the specification of Approved cable sizes. These changes will affect all new installations and are aimed at reducing cable losses in accordance with the WPD Losses Strategy. This means that the 95mm<sup>2</sup> triplex and single core cables are now removed from general use, they can only be used for padmounts and the repair of faults in existing 95mm<sup>2</sup> circuits.

Provision shall be made to prevent the longitudinal and radial transmission of water in the stranded copper conductor, using tape water blocking material.

## **3.0 POLICY FOR 11kV SUBSTATION CABLES**

6,350/11,000 Volt single core cables, the cables shall be constructed with a stranded circular copper phase conductor of 630mm<sup>2</sup>, a semi-conducting conductor screen, EPR insulation, a semi-conducting easy strip insulation screen, with 35mm<sup>2</sup> copper wire screen wires, a plastic lay-up tape and a medium density polyethylene (MDPE) coloured red oversheath, to British Standard Specification (BS) BS 7870 Part 4.10, Table 1.

Provision shall be made to prevent the longitudinal and radial transmission of water in the stranded copper conductor, using tape water blocking material.

## **APPENDIX A**

### **SUPERSEDED DOCUMENTATION**

This document supersedes POL:CA2 dated July 2006 which has now been withdrawn.

## **APPENDIX B**

### **ASSOCIATED DOCUMENTATION**

EE82

## **APPENDIX C**

### **IMPACT ON COMPANY POLICY**

None.

## **APPENDIX D**

### **IMPLEMENTATION OF POLICY**

Team managers to disseminate the information to their respective 11kV staff.

## **APPENDIX E**

### **KEY WORDS**

EPR cable, 11kV triplex, 11kV single core.