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Australian STANDARD®

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Communication networks and systems for power utility automation

Part 4: System and project management



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Communication networks and systems for power utility automation

Part 4: System and project management

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Structure of Standards

A Standard always has the following parts:

(i) The Preface states who developed the Standard, what the Standard is aiming to do, and how it relates to other documents.

(ii) The Scope states what the Standard is about, what it covers and what it does not cover.

(iii) The Normative references clause lists other documents that are referenced in the Standard as part of requirements.

(iv) The Terms and definitions clause defines important terms to help with understanding the Standard.

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(2) An informative appendix provides additional information or guidance. They usually do not contain requirements. If an informative appendix does contain requirements, the Standard will explain when those requirements apply.

(3) A Bibliography lists documents referenced in the Standard but not as part of requirements.

Many Standards include notes. Notes provide recommendations and/or guidance only. They never contain requirements.

Preface

This Standard was prepared by the Standards Australia Committee EL-050, Power System Control and Communication, to supersede AS 61850.4:2005, *Communication networks and systems in substations, Part 4: System and project management.*

The objective of this document is to define the system and project management for UAS systems with communication between intelligent electronic devices (IEDs) in the respective substation plant and the related system requirements.

This second edition is a technical revision to better align the document with the other parts in the IEC 61850 series. In addition, it expands the scope from only covering substation automation systems to covering all utility automation systems.

This document is identical to, and has been reproduced from, IEC 61850-4:2011+AMD1:2020 CSV, *Communication networks and systems for power utility automation – Part 4: System and project management,* and its amendment No. 1 (2020), which has been added at the end of the source text.

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FOREWORD

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International Standard IEC 61850-4 has been prepared by IEC technical committee 57: Power systems management and associated information exchange.

This second edition cancels and replaces the first edition published in 2002. It constitutes a technical revision to align the document more closely with the other parts of the IEC 61850 series, in addition to enlarging the scope from substation automation systems to all utility automation systems.

The text of this standard is based on the following documents:

FDIS	Report on voting
57/1103/FDIS	57/1122/RVD

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Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts of the IEC 61850 series, under the general title: *Communication networks and systems for power utility automation*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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Communication networks and systems for power utility automation

Part 4: System and project management

1 Scope

This part of IEC 61850 applies to projects associated with process near automation systems of power utilities (UAS, utility automation system), like e.g. substation automation systems (SAS). It defines the system and project management for UAS systems with communication between intelligent electronic devices (IEDs) in the substation respective plant and the related system requirements.

The specifications of this part pertain to the system and project management with respect to:

– the engineering process and its supporting tools;

– the life cycle of the overall system and its IEDs;

– the quality assurance beginning with the development stage and ending with discontinuation and decommissioning of the UAS and its IEDs.

The requirements of the system and project management process and of special supporting tools for engineering and testing are described.

2 Normative references

The following referenced documents 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.

IEC 60848, *GRAFCET specification language for sequential function charts*

IEC 61082 (all parts), *Preparation of documents used in electrotechnology*

IEC 61175, *Industrial systems, installations and equipment and industrial products – Designation of signals*

IEC 61850-6, *Communication networks and systems for power utility automation – Part 6: Configuration description language for communication in electrical substations related to IEDs*

IEC 61850-7 (all parts), *Communication networks and systems for power utility automation – Part 7: Basic communication structure*

IEC 81346 (all parts), *Industrial systems, installations and equipment and industrial products – Structuring principles and reference designations*

IEC 81346-1, *Industrial systems, installations and equipment and industrial products – Structuring principles and reference designations – Part 1: Basic rules*

IEC 81346-2, *Industrial systems, installations and equipment and industrial products – Structuring principles and reference designations – Part 2: Classification of objects and codes for classes*

3 Terms and definitions

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

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