

INTERNATIONAL STANDARD



**Communication networks and systems for power utility automation –
Part 4: System and project management**



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**COMMUNICATION NETWORKS AND SYSTEMS
FOR POWER UTILITY AUTOMATION –****Part 4: System and project management**

FOREWORD

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IEC 61850-4 Edition 2.1 contains the second edition (2011-04) [documents 57/1103/FDIS and 57/1124/RVD] and its amendment 1 (2020-11) [documents 57/2256/FDIS and 57/2274/RVD].

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

This edition aligns 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.

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 the base publication and its amendment 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

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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 processes near automation systems of power utilities (UAS, utility automation system), such as substation automation systems (SAS). It defines the system and project management for UAS 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 processes 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 power utility automation systems 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*

3 Terms and definitions

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

3.1

supporting tools

those tools that support the user in the engineering, the operation and the management of the UAS and its IEDs

NOTE These tools are usually a part of the UAS.