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IEEE Recommended Practice for Smart Grid Communications Equipment—Test Methods and Installation Requirements

IEEE Communications Society

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Power Line Communications Committee

IEEE
3 Park Avenue
New York, NY 10016-5997
USA

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Abstract: Recommended in this document are practices for the testing and implementation of smart grid communication with regard to safety, electromagnetic compatibility, and environmental and mechanical requirements, but excluding interoperability.

Keywords: communications, electromagnetic compatibility, environmental testing, IEEE 1909.1™, installation requirements, mechanical testing, safety, smart grid

The Institute of Electrical and Electronics Engineers, Inc.
3 Park Avenue, New York, NY 10016-5997, USA

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Introduction

This introduction is not part of IEEE Std 1909.1™-2014, IEEE Recommended Practice for Smart Grid Communications Equipment—Test Methods and Installation Requirements.

This document covers recommended practice for the testing and installation of different types of smart grid communication equipment in power generation, transmission, and distribution facilities as well as commercial establishments and the home environment according to national and international standards. The recommended practice includes the safety, EMC, environmental, and mechanical battery of tests but excludes interoperability testing and verification of product compliance to its original performance specification.

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IEEE Recommended Practice for Smart Grid Communications Equipment—Test Methods and Installation Requirements

1. Overview

1.1 Scope

This document includes the recommended practice for testing and installing different types of smart grid communication equipment according to national and international standards available for equipment to be used in the smart grid.

The recommended practice includes the safety,[1] EMC, environmental, and mechanical battery of tests but excludes the interoperability testing. This document captures the recommended practice for communication equipment to be installed in various domains of the smart grid such as generation, transmission, and distribution.

1.2 Purpose

The recommended practice helps the industry to place on the market communication equipment suitable for use and installation in different smart grid domains. Based on specific types of communication equipment

[1] i.e., safety validation, as defined in IEEE 100, seventh edition, page 999.