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IEEE Guide for Development of Specifications for Turnkey Substation Projects

IEEE Power and Energy Society

Sponsored by the
Substation Committee

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USA

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(Revision of IEEE Std 1267-1999)

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Abstract: Systematic methodology, guidelines and practices for developing turnkey substation specifications are provided in this guide. Guidance on engineering, procurement, construction, testing and commissioning, quality assurance/quality control and training is provided.

Keywords: design-build, EPC, IEEE 1267™, specification, specify, substation, turnkey

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Introduction

This introduction is not part of IEEE Std 1267-2019, IEEE Guide for Development of Specifications for Turnkey Substation Projects.

This guide is issued to aid users in developing and preparing specifications for turnkey substation projects; its intent is advisory. The guide covers parameters to be supplied by the purchaser or the purchaser's engineer so that a turnkey contractor can engineer, procure, construct, test and commission a substation project, and provide quality assurance/quality control and training.

The significance of the word turnkey is to be inclusive of engineering, procurement, construction, testing, commissioning, quality assurance and training.

In addition to the items included in this guide, the purchaser may provide supplemental requirements and oversight to the contractor or the contractor's work. Such requirements and oversight should be spelled out in the turnkey specification.

This revision is a significant re-arrangement and expansion of a guide originally published in 1999 in response to a growing procurement trend in the electric utility and commercial power industries. Experience using this guide and evolving industry trends indicated that a major update was warranted. This revision hopes to provide improved guidance to the specifier assisting in the tradeoffs between specification detail, execution risks, and project cost.

Contents

IEEE Guide for Development of Specifications for Turnkey Substation Projects

1. Overview

1.1 Scope

The scope of this guide is to provide methodology, requirements and practices for both the users and suppliers for a systematic and coordinated approach for development of specification for turnkey substation projects.

This guide covers the technical requirements to develop the specifications for the engineering, procurement, construction, testing and commissioning, quality assurance/quality control and training for substations.

The contractor should furnish all equipment, materials, and services as specified by the purchaser.

The purchaser is responsible for the project data and information for use by the contractor in the proposal. If either party supplies technical data, that party is responsible for the data accuracy.

1.2 Purpose

The purpose of this guide is help users and suppliers in specifying requirements and guidance for formulating complete specifications for turnkey substations or projects.

2. Definitions, abbreviations, and acronyms

2.1 Definitions

For the purposes of this document, the following terms and definitions apply. The *IEEE Standards Dictionary Online* should be consulted for terms not defined in this clause. [1]

contractor: A vendor that has or intends to enter into an agreement to provide goods and services related to a specific project. The contractor may utilize service providers or subcontractors to execute certain portions of the project scope, but for the purposes of this guide, the contractor assumes all responsibility.

design specifications: Specifications that include specific requirements on how a project is to be designed to accomplish the desired project outcomes. References to specific manufacturers, purchaser standards and practices, and construction standards are provided as mandatory project execution requirements.

[1] *IEEE Standards Dictionary Online* is available at: http://dictionary.ieee.org.