

PC62.92.6

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Type of Project: New IEEE Standard

PAR Request Date: 10-Jul-2015

PAR Approval Date: 03-Sep-2015

PAR Expiration Date: 31-Dec-2019

Status: PAR for a New IEEE Standard

1.1 Project Number: PC62.92.6

1.2 Type of Document: Guide

1.3 Life Cycle: Full Use

2.1 Title: Guide for the Application of Neutral Grounding in Electrical Utility Systems, Part VI - Systems Supplied by Current-Regulated Sources

3.1 Working Group: 3.5.7 App Guide for Neutral Grounding in Elec Utility Systems WG (PE/SPDHV/HV3.5.7)

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3.2 Sponsoring Society and Committee: IEEE Power and Energy Society/Surge Protective Devices/High Voltage (PE/SPDHV)

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4.1 Type of Ballot: Individual

4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 12/2017

4.3 Projected Completion Date for Submittal to RevCom: 10/2018

5.1 Approximate number of people expected to be actively involved in the development of this project: 20

5.2 Scope: This guide is intended for application to three-phase electrical utility systems and is Part 6 of an IEEE C62.92 series. This part provides definitions and considerations related to system grounding where the dominant sources of system energization are current-regulated or power-regulated power conversion devices.

5.3 Is the completion of this standard dependent upon the completion of another standard: No

5.4 Purpose: This guide defines neutral grounding in the context of current-regulated and power-regulated sources and presents basic considerations of the selection of neutral grounding parameters that will provide for the control of overvoltage on three-phase electrical utility systems in which such sources are dominant.

5.5 Need for the Project: The sources of energization of electrical utility systems have conventionally been rotating generators, which are well characterized as voltage sources in series with predominately inductive impedances. The conventional understanding of system grounding has been based on the assumption that all sources can be characterized as voltage sources. New forms of generation and energy storage are now being interconnected to three-phase electric utility systems via power-electronic conversion devices that are controlled as constant current or constant power devices. Situations where the current- or power-regulated devices become the dominant energization sources for a portion of the utility system can occur. The conventional understanding of system grounding is inadequate to address these situations. This guide fulfills the need to re-define and apply the principles of system grounding in the context of these regulated sources.

5.6 Stakeholders for the Standard: Electric utilities

Manufacturers and vendors of current-regulated electric power sources (e.g., inverters)

Users of current-regulated electric power sources

Intellectual Property

6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?: No

6.1.b. Is the Sponsor aware of possible registration activity related to this project?: No

7.1 Are there other standards or projects with a similar scope?: No

7.2 Joint Development

Is it the intent to develop this document jointly with another organization?: No

8.1 Additional Explanatory Notes (Item Number and Explanation):