



IEEE Guide for the Design and Testing of Transmission Modular Restoration Structure Components

IEEE Power Engineering Society

Sponsored by the
Transmission and Distribution Committee

1070TM

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

8 December 2006

IEEE Std 1070TM-2006
(Revision of
IEEE 1070-1995)

*Recognized as an
American National Standard (ANSI)*

IEEE Std 1070™-2006(R2012)
(Revision of
IEEE Std 1070-1995)

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Approved 18 October 2006

American National Standards Institute

Approved 8 June 2006

Reaffirmed 29 March 2012

IEEE SA-Standards Board

Abstract: A generic specification, including design and testing, for transmission modular restoration structure components used by electric utilities is provided.

Keywords: box sections, column sections, end plates, foundations, gimbals, guy plates, transmission mutual aid

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Print: ISBN 0-7381-4998-5 SH95553
PDF: ISBN 0-7381-4999-3 SS95553

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Introduction

This introduction is not part of IEEE Std 1070-2006, IEEE Guide for the Design and Testing of Transmission Modular Restoration Structure Components.

In the past years, most of the utilities in North America have joined together through mutual aid programs to help one another in case of emergencies. As part of the mutual aid for transmission, a modular restoration structure was developed and is now being used by several utilities worldwide. The versatility of this structure and its contribution to the utility industry prompted the preparation of this guide.

This guide is generic in its design so that any utility desiring to use the modular concept as part of a mutual aid plan can do so. Structures built to this design would then be compatible with the structures of another company using the same concept. This feature affords many positive results in that savings are realized in crew training, crew readiness for emergencies, and total investment of emergency structures (i.e., fewer structures because structures could be loaned from mutual aid participants). Of course, this modular concept is not limited to any particular application.

Numerous requests for a generic design of a modular structure were received from throughout the industry. The Subcommittee on the Engineering in the Safety, Maintenance and Operation of Lines (ESMOL), part of the Transmission and Distribution (T&D) Committee of the IEEE Power Engineering Society, accepted this project. A working group from the ESMOL Subcommittee was formed to complete this task. The guide published in 1995 has now been updated and revised by this 2006 edition.

This guide represents a significant contribution to the utility industry that emphasized the spirit of cooperation between diverse groups in the presentation of such a document and is based on sound engineering principles and accepted operational practices. It is the intention of the ESMOL Working Group to continue to update this guide as future needs dictate.

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