

IEEE STANDARDS
ARCHIVES
DO NOT REMOVE

IEEE Standard
Definitions of Terms
for
AUTOMATIC GENERATION CONTROL
ON ELECTRIC POWER SYSTEMS

IEEE No. 94



PUBLISHED BY

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, Inc

345 EAST 47 STREET, NEW YORK, N. Y. 10017



Documents

Document Sharing Hub

Authorized licensed use limited to: Tsinghua University. Downloaded on February 26, 2026 at 09:45:41 UTC from IEEE Xplore. Restrictions apply.

IEEE Standard
Definitions of Terms
for
AUTOMATIC GENERATION CONTROL
ON ELECTRIC POWER SYSTEMS

CONTENTS

100. Terms Used in Power System Operation	1358
200. Prime-Mover and Governor Characteristics	1359
300. Types and Characteristics of Automatic Control Action	1360
400. Elements and Components of Automatic Control Systems	1361
500. Telemetry Signal Characteristics	1361
600. Control Equipment Characteristics	1361
700. Economic Dispatch Terms	1362
800. Index of Nonstandard Terms	1362
900. Alphabetical List of Terms	1363

Approved by the IEEE STANDARDS Committee on July 6, 1968.

**Reprinted from IEEE TRANSACTIONS ON POWER APPARATUS AND SYSTEMS,
VOL. PAS-89, No. 6, July/August 1970**

© Copyright 1970 by the Institute of Electrical and Electronics Engineers, Inc.

This publication may be reproduced, without change, in part or in its entirety,
provided that notice of its copyright by the IEEE is included.

FOREWORD

This is the first revision of this publication, which formalizes the work of the System Controls Subcommittee of the Power System Engineering Committee on the terminology for automatic generation control on electric power systems. The need for standard terminology in this field became apparent after a study of technical papers indicated that many authors were using different definitions for their terms. Requests for the standardization of terms were also received from the operating groups of the large interconnected power systems in this country and Canada. This is the first publication in English devoted specifically to the terminology used in automatic generation control.

The definitions in this publication were prepared for use primarily in the field of automatic generation control on electric power systems. Therefore, it is recognized that many of the terms are defined in too limited a manner for use in other fields.

In the preparation of this publication, reference to the following publications proved extremely helpful:

1. IEEE 122 (AIEE No. 600) (December 1959), "Recommended Specification for Speed-Governing of Steam Turbines Intended to Drive Electric Generators Rated 500 kW and Larger."
2. IEEE 125 (AIEE No. 605) (September 1950), "Recommended Specification for Speed-Governing of Hydraulic Turbines Intended to Drive Electric Generators."
3. IEEE 270 (September 1966), "Proposed Standard Definitions of General (Fundamental and Derived) Electrical and Electronics Terms."
4. "American National Standard Terminology for Automatic Controls." ANSI C85.1-1963.
5. ASME Standard 105, "Automatic Control Terminology."
6. American National Standard C42.35-1957—Definitions of Electrical Terms—Group 35—Generation, Transmission and Distribution.
7. American National Standard C42.30-1957—Definitions of Electrical Terms—Group 30—Instruments, Meters and Meter Testing.
8. American National Standard C42.25-1957—Definitions of Electrical Terms—Group 25—Industrial Control Equipment.

In accordance with ANSI instructions CE516, dated June 9, 1960, titled "Procedure to Be Followed in the Preparation or Revision of Definitions of Electrical Terms in Proposed American National Standards," the following note applies to items 114, 133, 302, 315, 401, 402, 412:

* "At the time this Standard was submitted for approval, this committee and the appropriate C42 committee had not agreed on a mutually acceptable term and definition, and the term and definition given herein are recognized as American National Standard for the purpose of this particular Standard."

ACKNOWLEDGMENT

The Institute wishes to acknowledge its indebtedness to those who have so freely given of their time and knowledge and have conducted experimental work on which many of the IEEE publications are based.

The work of revising this publication was carried out by the System Controls Subcommittee of the Power System Engineering Committee of the IEEE Power Group. The members of this subcommittee were:

T. W. Hissey, *Chairman*

D. H. Berry	J. W. Kepner
G. A. Davis	J. Miller
F. P. deMello	D. E. Simmons
C. W. Eggers	E. E. Swanson
J. H. Graham	R. O. Usry
G. L. Hood	C. N. Whitmire
J. R. Huff	D. G. Wohlgemuth