IEEE Recommended Practice for Determination of Power Losses in High-Voltage Direct-Current (HVDC) Converter Stations

Sponsor Substations Committee of the IEEE Power Engineering Society

Approved September 26, 1991 IEEE Standards Board

Abstract: A set of standard procedures for determining and verifying the total losses of a high-voltage direct-current (HVDC) converter station is recommended. The procedures are applicable to all parts of the converter station and cover standby, partial-load, and full-load losses and methods of calculation and measurement. All line-commutated converter stations used for power exchange in utility systems are covered. Loss determination procedures for synchronous compensators or static var compensators are not included.

Keywords: converter stations, power losses, HVDC converter stations

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ISBN 1-55937-174-9

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Foreword

(This foreword is not a part of IEEE Std 1158-1991, IEEE Recommended Practice for Determination of Power Losses in High-Voltage Direct-Current (HVDC) Converter Stations.)

This recommended practice was prepared by Working Group I6 of the DC Converter Stations Subcommittee of the Substations Committee of the IEEE Power Engineering Society.

Preparation of this recommended practice was begun during 1986 for the purpose of establishing guidelines and criteria for the determination of power losses in high-voltage direct-current (HVDC) converter stations. It presents an up-to-date summary of procedures for determining and verifying the total losses of an HVDC converter station.

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