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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 43794-2024

**Guides for reliability evaluation indices of customer power
supply service**

用户供电可靠性评价指标导则

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part

1. Structure and drafting rules for standardization documents" Drafting. Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents. This document is proposed and coordinated by the China Electricity Council. This document was drafted by: China Electricity Council, Shenzhen Power Supply Bureau Co., Ltd., China Southern Power Grid Co., Ltd., State Grid Corporation of China Grid Co., Ltd., State Grid Chongqing Electric Power Company, China Southern Power Grid Research Institute Co., Ltd., and Guangdong Power Grid Co., Ltd. The main drafters of this document are. Zhou Xia, Chen Dan, Liu Yongli, Wang Peng, Guo Lu, Ning Xin, Gu Yanzhang, Wang Jinyu, Fan Zhaoyong, Bai Hao, Liao Qinglong, Peng Fadong, Yang Qunying, Xiao Ming, Lei Yiyong, Pan Shuhui, Zhong Huazan, Gao Dandan, Bai Wenyuan, Yu Qiao, Wang Zhen, Tan Jun, Huang Yangjue, Lin Shenli, Be like the sky. Guidelines for evaluation indicators of user power supply reliability

1 Scope

GB/T 43794-2024 defines the indices by which the reliability of supply to an electricity customer is evaluated. The familiar system indices - average interruption duration and frequency across a whole network - describe the utility's performance but not the customer's experience, and a customer at the end of a rural feeder can be out for a day a year while the system figure looks excellent. The distinction that makes the indices usable is the attribution of the outage: a planned outage, a fault in the utility's network, a fault on the customer's own installation and an external cause do not mean the same thing and must not be aggregated blindly. The standard classifies the nature and cause of outages, sets the evaluation indices and their calculation methods, and covers the application of the indices, with a normative annex on the classification and coding of outage responsibility causes and

informative annexes on the outage nature definitions and symbols, the index symbols and units, and a worked calculation example. It took effect on 1 October 2024.

This document specifies the user power supply reliability evaluation indicators and their calculation and application methods. This document is applicable to the statistics, analysis and evaluation of power supply reliability for users of power supply systems.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

GB/T 2900.99 Credibility of electrical terminology

3 Terms and definitions

The terms and definitions defined in GB/T 2900.99 and the following apply to this document.

3.1 Power supply system The power supply network from the disconnector on the outgoing bus side of the high-voltage distribution substation of the power system to the user-side boundary point.

3.2 The ability of a power supply system to continuously supply power to users.

3.3 User A metering and charging account established by a power supply company at a fixed location.

3.4 Low voltage user Users receiving electricity at 380V/220V voltage.

3.5 Users receiving electricity at 10(6, 20) kV voltage.

3.6 Users receiving electricity at voltage of 35kV and above.

3.7 The smallest unit of measurement for power supply reliability statistics.

3.8 A low-voltage electricity user that accepts metered charges from power supply companies.