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

GB/T 15316-2024

Replacing GB/T 15316-2009

**General principles for energy saving monitoring and testing
techniques**

节能监测技术通则

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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 is required. This document replaces GB/T 15316-2009 "General Technical Rules for Energy Conservation Monitoring". Compared with GB/T 15316-2009, in addition to the structural adjustment In addition to editorial changes, the main technical changes are as follows: Changed the scope (see Chapter 1, Chapter 1 of the.2009 edition);

- a) Added the definition of "online monitoring of energy consumption" (see 3.6);
- b) Deleted "Scope of Energy Saving Monitoring" (see Chapter 4 of the.2009 edition);
- c) Added requirements for energy storage systems and distributed energy construction; added energy management systems and online monitoring of energy consumption for energy-consuming units The requirements for the construction of systems, etc. were increased; the requirements for energy-consuming units to separately measure raw material energy consumption, renewable energy consumption, and green certificates were added; Added requirements for greenhouse gas emissions accounting for energy

consumption units (see 4.1.3, 4.4.1, 4.4.2, 4.4.4);

d) The requirement for regular monitoring cycles has been deleted (see Chapter 6 of the.2009 edition);

e) The energy-saving monitoring method has been deleted (see Chapter 8 of the.2009 edition);

f) The technical requirements for monitoring agencies (see Chapter 10 of the.2009 edition) have been deleted.

g) 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 was proposed and coordinated by the National Technical Committee for Standardization of Energy Fundamentals and Management (SAC/TC 20). This document was drafted by: Beijing Institute of Technology, China National Institute of Standardization, Beijing Normal University, Shandong Guoshun Construction Group Co., Ltd. Company, GEM Co., Ltd., State Grid Zhejiang Integrated Energy Services Co., Ltd., Shenzhen Dashi Intelligent Co., Ltd., Qingdao Haier Air Shanghai Carbonsuo Energy Service Co., Ltd., Beijing Guangyuan Technology Co., Ltd., Beijing Helong Optimization Technology Co., Ltd. Co., Ltd., Guangdong Sai'an Technology Co., Ltd., China Southern Power Grid Integrated Energy Co., Ltd., Guangdong Mushroom Internet of Things Technology Co., Ltd., Yunchuang (Beijing) Technology Co., Ltd., CECEP Energy Conservation Technology Co., Ltd., Xiamen Jinming Energy Conservation Technology Co., Ltd., and China Construction Fifth Engineering Bureau Installation Engineering Co., Ltd., Tongfang Xinjie Energy (Tianjin) Technology Co., Ltd., Nanjing Deep Intelligent Control Technology Co., Ltd., Shandong Nolan Information Technology Co., Ltd. company. The main drafters of this document are. Wei Yiming, Shen Meng, Lin Ling, Ding Qing, Tang Baojun, Liao Hua, Yu Biying, Liang Qiaomei, Liu Lancui, Cong Ronggang, Zhao Lutao, Qu Shen, Wang Ke, Ma Xiaowei, Zhao Weigang, Yuan Xiaochen, Cao Yunfei, Chen Weiming, Liu Lijing, Kang Jianing, Han Te, Yang Tingru, Li Hui, Wang Lulu, Zhang Tong, Wang Jinwei, Qi Xiaohong, Lü Hewu, Feng Chao, Xu Kaihua, Zhang Xu, Su Junfeng, Zhu Lianfu, Zhang Zhiquan, Wang Yuankun, Li Mingdang, Wei Qiong, Gao Biao, Xu Haihang, Zhang Rongbing, Shen Guohui, Zhou Beichuan, Chi Quanhu, Tu Lingxiang, Zhang Jiajia, Ma Lixue, Li Hui, Tao Jinli, Li Peng, Sun Hao, Zhang Anqiang, Xu Ning. This document was first issued in.1994, revised for the first time in.2009, and this is the second revision. General technical rules for energy conservation monitoring

1 Scope

GB/T 15316-2024 is the Chinese national standard on general principles for energy saving monitoring and testing techniques, in the field of energy and heat transfer engineering. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in

practice is how most foreign buyers meet it. It was issued on 28 November 2024 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 June 2025. Classification: ICS 27.010, CCS F04. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies the content and requirements of energy conservation monitoring, technical conditions, determination of monitoring items, determination and evaluation of monitoring item evaluation indicators. Preparation of valuation conclusions and reports. This document is applicable to comprehensive energy-saving monitoring and single-item energy-saving monitoring of energy-consuming units.

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. in this document.

GB/T 1028 Industrial residual energy resource evaluation method

GB/T 3485 Technical Guidelines for Evaluating Reasonable Electricity Utilization in Enterprises

GB/T 3486 Technical Guidelines for Evaluating Reasonable Heat Use in Enterprises

GB 17167 General rules for the allocation and management of energy metering instruments in energy-consuming units

GB/T 23331 Energy Management System Requirements and Usage Guide

GB/T 32150 General principles for accounting and reporting of greenhouse gas emissions from industrial enterprises

GB/T 32151 (all parts) Carbon emissions accounting and reporting requirements

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 Energy utilization state The rationality and actual operation status of the equipment and pipeline network configuration of energy-consuming units in energy conversion, transmission, distribution and utilization systems, processes and equipment The actual situation reflected in the advancement of technical performance and the actual operation

technology level, the scientific nature of energy purchase, distribution, and use management, etc. Energy consumption and usage levels.

3.2 energy supply quality The types, quality indicators and technical parameters of energy provided by energy supply units to users.

3.3 Energy saving monitoring and testing Monitoring of energy use by energy-consuming units in accordance with national energy conservation laws (or industry or local regulations) and standards Supervision, inspection, testing and evaluation.

3.4 Comprehensive energy saving monitoring and testing Energy-saving monitoring of the overall energy utilization of energy-consuming units.

3.5 single item energy saving monitoring and testing Energy-saving monitoring of the energy utilization status of the main energy-consuming equipment or systems of energy-consuming units.