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

GB/T 46737-2025

**Guidance for the evaluation of zero-carbon factories in the
electrical and electronic industry**

电工电子行业零碳工厂评价导则

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Foreword

This document conforms to GB/T 1.1-2020 "Standardization Work Guidelines Part

1.Structure and Drafting Rules of Standardization Documents". Drafting is scheduled.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was prepared by the National Technical Committee on Environmental Standardization of Electrical and Electronic Products and Systems (SAC/TC 297) and the National Carbon Emission Management Committee. The standardization technical committee (SAC/TC 548) jointly proposed and is responsible for its implementation. This document was drafted by: China Quality Certification Center Co., Ltd., Guangdong Bangpu Recycling Technology Co., Ltd., and Shenzhen Polytechnic. Shenzhen Huajiang Green Technology Co., Ltd., Guangdong CR Carbon Energy Technology Co., Ltd., China Energy Conservation Association, Beijing Electrical Engineering Technology and Economics of Machinery Industry Research institute, China Inspection Group Southern Testing Co., Ltd., Shenzhen Technology University, Beijing Energy Conservation and Environmental Protection Center, State Grid Shanxi Electric Power Company Institute of Force Science, Hangzhou Hikvision Digital Technology Co., Ltd., Shenzhen Institute of Standards and Technology, China Certification & Testing Technology Co., Ltd. The company, Shenzhen Institute of Metrology and Quality Inspection, China Electronics Technology Standardization

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1 Scope

GB/T 46737-2025 is the Chinese national standard covering judging a zero-carbon claim in an electronics plant - the scope 1 and 2 emissions and how far into scope 3 the claim reaches, the renewable energy and how it is evidenced, the offsets and their quality, and the scoring that decides the grade. First edition, and it belongs with the greenhouse gas management system standard GB/T 46566-2025. Issued on 31 October 2025, it has been

in force since 31 October 2025.

This document specifies the basic requirements and evaluation criteria for zero-carbon factories in the electrical and electronic industry. This document applies to third-party evaluations of zero-carbon factories in the electrical and electronic industries, and is also applicable to self-evaluations and stakeholder evaluations.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are listed below. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 13234 Method for Calculating Energy Savings by Energy-Using Units

GB/T 23331 Energy Management System Requirements and Usage Guidelines

GB/T 24001 Environmental Management Systems Requirements and Guidance for Use

GB/T 24067 Requirements and Guidelines for Quantifying the Carbon Footprint of Greenhouse Gas Products

GB 26572 Requirements for the Restriction of Hazardous Substances in Electrical and Electronic Products

GB/T 29115 Guidelines for Evaluation of Raw Material Conservation in Industrial Enterprises

GB/T 29116 General Rules for Calculating Raw Material Consumption in Industrial Enterprises

GB/T 32150 General Rules for Greenhouse Gas Emission Accounting and Reporting by Industrial Enterprises

GB/T 32151 (All Parts) Requirements for Greenhouse Gas Emission Accounting and Reporting

GB/T 33760 General Requirements for Technical Specifications of Project-Based Greenhouse Gas Emission Reduction Assessment

GB/T 39257 Evaluation Standard for Green Supply Chain Management of Green Manufacturing Enterprises

3 Terms and Definitions

The terms and definitions defined in GB/T 32150 and the following terms and definitions

apply to this document.

3.1 electrical and electronic industry A comprehensive industry engaged in the design and manufacture of electrical equipment, electronic components, electronic systems and related products.

Note. Electrical equipment typically includes power system equipment such as generators, transformers, motors, and power distribution devices; electronic components and systems include semiconductor devices, integrated circuits, and other electronic components. Integrated circuits, communication equipment, consumer electronics, etc.

3.2 Zero-carbon factory Within a certain period, greenhouse gas emissions from production and related management processes, even after voluntary emission reductions, will result in residual emissions. (Quantity) A factory that achieves 100% offsetting through a certain method.

3.3 carbon credit A tradable certificate representing greenhouse gas emissions generated through greenhouse gas emission reduction or greenhouse gas reduction projects.

Note. One carbon credit certificate is equivalent to 1 ton of carbon dioxide equivalent.
[Source: ISO 14068-1.2023, 3.3.2, with modifications]