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

GB/T 24045-2024

**Environmental management - Eco-efficiency assessment of
product systems - Principles, requirements and guidelines**

环境管理 产品系统生态效率评估 原则、要求与指南

(English Translation)

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Reference

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.

This document is equivalent to ISO 14045:2012 "Principles, requirements and guidelines for eco-efficiency assessment of environmental management product systems".

Introduction

Eco-efficiency assessment is a quantitative management tool that can be used to study the environmental impact of a product system during its life cycle and the Value to stakeholders.

In the eco-efficiency assessment, this document uses the life cycle assessment (LCA) method specified in ISO 14040 and ISO 14044 to evaluate the environmental Therefore, eco-efficiency assessment is consistent with the important principles of life cycle assessment, such as life cycle perspective, comprehensiveness, functional Units, iteration, transparency, and the priority of the scientific method.

The selection of product system value can be used to comprehensively reflect its resource, production, delivery or use efficiency. The value can be expressed in terms of currency or other value aspects.

To express.

The main purposes of this document are to.

- Establish clear terminology and a common methodological framework for eco-efficiency assessment;
- Realize the practical application of eco-efficiency assessment of various product (including service) systems;
- Provide clear guidance for the interpretation of eco-efficiency assessment results;
- Encourage transparent, accurate and informative reporting of eco-efficiency assessment results.

Eco-efficiency assessment of environmental management product systems Principles, requirements and guidelines

1 Scope

This document provides the principles, requirements and guidelines for product system eco-efficiency assessment, including the purpose and scope of eco-efficiency assessment, Environmental assessment, product system value assessment, quantification of eco-efficiency, interpretation (including quality assurance), reporting, and critical review.

This document does not provide requirements, recommendations or guidance for the selection of specific environmental impact types and product system value types.

The intended applications of the eco-efficiency assessment were considered during the definition phase, but the actual use of the results is outside the scope of this document.

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.

Note: GB/T 24040-2008 Principles and framework for life cycle assessment of environmental management (ISO 14040:2006, IDT).

Note: GB/T 24044-2008 Environmental management life cycle assessment requirements and guidelines (ISO 14044:2006, IDT).

Note: GB/T 24050-2004 Environmental management terminology (ISO 14050:2002, IDT).

3 Terms and definitions

For the purposes of this document, the terms and definitions defined in ISO 14050 and the following apply.

Product

Any goods or services.

[Source. GB/T 24021-2024, 3.1.11] 3.2 Product flow Products enter this product system from other product systems or leave this product system and enter other product systems.

[Source. GB/T 24040-2008, 3.27] 3.3 Product Systemproductsystem A collection of unit processes that have basic flows and product flows, have one or more specific functions, and can simulate the product life cycle.

[Source. GB/T 24040-2008, 3.28]