

ICS 27.180
CCS F 11



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

GB/T 45855-2025

**Wind energy generation systems - Technical specification for
life cycle assessment of wind turbines**

风能发电系统 风力发电机组生命周期环境评价技术规范

Issued on: August 1, 2025

Implemented on: November 1, 2025

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

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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 was proposed by the China Machinery Industry Federation.

This document is under the jurisdiction of the National Technical Committee for Standardization of Wind Power Generation (SAC/TC50).

This document was drafted by: Goldwind Science & Technology Co., Ltd., State Power Investment Corporation Yunnan International Power Investment Co., Ltd., China Agricultural Machinery Mechanization Science Research Institute Hohhot Branch Co., Ltd., Beijing Jianheng Certification Center Co., Ltd., Shanghai Electric Wind Power Group Co., Ltd.

Jiangsu Goldwind Technology Co., Ltd., Shanghai Power Generation Equipment Complete Design and Research Institute Co., Ltd., China Three Gorges Corporation Guangdong Branch, China Three Gorges Corporation, China Huaneng Group Clean Energy Technology Research Institute Co., Ltd., Vestas Technology R&D (Beijing) Co., Ltd., China Datang Corporation Science and Technology Research Institute Co., Ltd., Shanghai Electric Power Industry Co., Ltd., Yunda Energy Technology Technology Group Co., Ltd., CRRC Shandong Wind Power Co., Ltd., Hunan Xinglan Wind Power Co., Ltd., Mingyang Smart Energy Group Co., Ltd., CSIC Haizhuang Wind Power Co., Ltd., CRRC Zhuzhou Electric Locomotive Research Institute Co., Ltd. Wind Power Division, Jiangsu Coastal Renewable Energy Technology Innovation Center, Zhejiang Goldwind Science and Technology Co., Ltd., China Quality Certification Center Co., Ltd., Siemens Gamesa Renewable Energy Technology (China) Co., Ltd.

Company, Yunnan Electric Power Testing Institute (Group) Co., Ltd., Zhongke Yuneng Technology Development Co., Ltd., Shanghai Taisheng Wind Energy Equipment Co., Ltd.

Company, Swedish Environmental Research Institute Ltd. Beijing Representative Office, Shanxi Tianbao Group Co., Ltd., China Datang Group Green and Low-Carbon

Development Co., Ltd., Tianjin Jianheng Technology Service Co., Ltd., and Qingdao Pangu Intelligent Manufacturing Co., Ltd.

The main drafters of this document are: Wang Yanli, Cao Zhigang, Wu Zhiqian, Wu Yungaowa, Zhu Lin, Yu Hui, Li Lin, Wang Dongya, Xu Guoqing, Ma Li, Lü Dong, Ye Zhaoliang, Chen Qiang, Chen Kerui, Guo Xufeng, Zhang Zhiwei, Feng Lingchong, Liu Nianshuang, Xu Ke, Yu Hongyan, Yang Yonghua, Chen Yanan, Liu Qi, Fang Long, Li Mian, Yuan Ying, Li Yue, Ding Xinzhi, Zhang Shuli, Lu Hui, Wang Rui, Wen Liting, Hu Dawei, Liu Xiangyan, Tian Ye, Wang Liliang, Cao Qingcai, Li Junwei, Wei Xinyuan, Zhang Yanling, and Yang Zhenhua.

Introduction

In today's world, as global climate problems and secondary disasters continue to intensify, more and more countries and regions are paying more attention to environmental protection.

European and American companies have successively launched sustainable supply chain strategies, requiring their suppliers to conduct life cycle assessments (LCA) or Completed the Type III environmental declaration. In order to better achieve the national "dual carbon" goal and keep pace with the world, as an important force in the world's energy transformation, we China's wind power industry needs to formulate corresponding environmental impact assessment standards.

Type III environmental declaration is one of a series of environmental labels and declarations. Environmental labels and declarations are the overall environmental characteristics, specific Buyers and potential buyers can use this information to determine the environmental factors or other factors.

Suppliers of products or services hope that their environmental labels or declarations will have an effective impact on buyers.

The environmental label or declaration has the effect of increasing the market share of its products or services and Encourage other suppliers to improve the environmental factors of their products or services so that they can use environmental labels or environmental declarations, and ultimately reduce The environmental pressure brought about by such products or services.

Type III environmental declarations provide quantitative product life cycle environmental information based on preset parameters, making it possible to compare products with the same function.

When making a Type III environmental declaration for one or more product categories, a specific set of rules, requirements and guidelines must be met, i.e.

The corresponding product category rules (PCR) are used to ensure that products

belonging to a given category are included in the life cycle assessment and the type III environmental declaration.

In the process of preparing a Type III environmental declaration, various names may be given to the plan or its specific declarations, such as the environmental Environmental declaration, Environmental Product Declaration (EPD), Environmental Overview, etc.

This document stipulates the principles and methods of environmental impact assessment of wind turbines throughout their life cycle.

Product Category Rules (PCR) for this type of product.

The LCA report prepared based on this document and the Type III environmental declaration made include the life of the wind turbines produced by the manufacturer.

The environmental information of the life cycle can provide reliable and comparable environmental information for buyers to select environmentally friendly wind turbine products.

This aspect provides data support for manufacturers to continuously improve the environmental performance of wind turbine products.

Wind power generation system wind turbine life cycle Environmental Assessment Technical Specifications

1 Scope

This document specifies the product description, functional units, system Requirements for boundaries, life cycle inventory analysis, life cycle impact assessment, reporting elements, verification and validity.

This document is applicable to the evaluation of the environmental impact categories listed in this document during the life cycle of wind turbines.

This document is not applicable to the noise generated by wind turbines, nor is it applicable to the assessment of environmental impacts such as soil and water conservation and biodiversity.

2 Normative references

GB/T 18451.2

GB/T 24020

GB/T 24025

GB/T 24040

GB/T 24044