

ICS 13.030.50

CCS Z 04



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

GB/T 45922-2025

Technical specification for photovoltaic module scrapping

光伏组件报废技术要求

Issued on: June 30, 2025

Implemented on: January 1, 2026

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

Table of Contents

Preface	III
Introduction	IV
1 Scope	1
2 Normative references	1
3 Terms and Definitions	1
4 Basic requirements for scrapping	1
5 Scrap determination process	1
6 Scrap determination conditions	2
7 Requirements for scrap determination	3
Appendix A (Informative) Panel Firmness Classification	7
References	8

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 by China Building Materials Federation.

This document is under the jurisdiction of the National Technical Committee for Standardization of Architectural Glass (SAC/TC255).

This document was drafted by: Shuifa Xingye Energy (Zhuhai) Co., Ltd., Shenzhen Institute of Standards and Technology, Guangdong Huaju Testing Technology Co., Ltd.

Company, Zhonghui New Energy (Guangdong) Co., Ltd., Shuifa Energy Engineering Co., Ltd., Longi Green Energy Technology Co., Ltd., Gogreen Solar Co., Ltd., Shuifa Xingye Holdings Co., Ltd., Zhejiang Gepu Solar Technology Co., Ltd., Gansu Natural Energy Research Institute, Zhejiang Aixu Solar Energy Technology Co., Ltd., State Grid Shandong Electric Power Company Changyi Power Supply Company, Zhuhai Huizhong Energy Technology Co., Ltd., Shanghai Second Industrial University University of Science and Technology, Changzhou Institute of Technology, Zhuhai Power Supply Bureau of Guangdong Power Grid Co., Ltd., Yicheng Intelligent Manufacturing (Suzhou) Technology Co., Ltd., Shanxi Installation Group Co., Ltd.

Co., Ltd., Huadian Hebei New Energy Co., Ltd., Qinhuangdao Glass Industry Research and Design Institute Co., Ltd., Zhongshan Xingzhong Energy Development Co., Ltd.

Co., Ltd., Shuifa Technology Information (Shandong) Co., Ltd., Trina Green Building (Shanghai) Photovoltaic Technology Co., Ltd., Guangzhou Institute of Energy Conservation, Chinese Academy of Sciences Institute, Zhuhai Quanqi Technology Co., Ltd., Shenzhen Chuangyi New Materials Co., Ltd., Zhuhai Fulanke Construction Engineering Co., Ltd., Shenzhen University, China Electric Power Research Institute Co., Ltd., China Resources Recycling Association, China National Testing and Inspection Holding Group Co., Ltd.

Company, Yunying Zhiwei Energy Technology Co., Ltd., Wuxi Inspection and Certification Institute, China Architecture Design and Research Institute Co., Ltd., Sichuan Provincial Construction Zhu Design and Research Institute Co., Ltd., JinkoSolar (Haining) Co., Ltd., Ruichang Zhongjiancai Optoelectronic Materials Co., Ltd., State Power Investment Corporation Comprehensive Smarter Energy Co., Ltd., Yingli Group Co., Ltd., Tianjin University, Beijing Zhongre Alliance Technology Service Co., Ltd., Shenzhen Power Supply Bureau Co., Ltd.

Zhuhai City Safety Production Association, Shuifa Energy Engineering Technology (Zhuhai) Co., Ltd., Zhuhai Xingye Green Building Technology Co., Ltd., Zhuhai Xingye Green Building Technology Co., Ltd.

Energy Saving Technology Co., Ltd., Xinyuan Jinwu (Beijing) Technology Co., Ltd., Beijing Ruike Tongchuang Technology Co., Ltd., Changzhou Huayang Inspection Detection Technology Co., Ltd., China Communications Photovoltaic Technology Co., Ltd., China Capital Environmental New Energy Recycling Technology (Shenzhen) Co., Ltd., Longyan Energy Science and Technology Technology (Hangzhou) Co., Ltd., Kunshan GCL Optoelectronic Materials Co., Ltd., China Construction Zhonghuan New Energy Co., Ltd., China Construction Third Engineering Bureau Second Construction Engineering Engineering Co., Ltd., China Construction Third Engineering Bureau Group Co., Ltd., China Building Materials (Zhuzhou) Optoelectronic Materials Co., Ltd., China Construction Eighth Engineering Bureau Southwest Construction Engineering Co., Ltd.

Co., Ltd., Zhejiang Jinbei Energy Technology Co., Ltd., and Shanxi Yijian Group Co., Ltd.

The main drafters of this document are: Zhang Ling, Li Yingwen, Yang Ge, Mao Huijie, Zhou Guangyan, Guo Peidong, Zhang Chao, Zhou Qing, Liu Linglin, Gong Biao, Chen Wendong, Ma Wuxing, Wu Chao, Liu Yusheng, Li Weidong, Zhu Longteng, Li Yang, Li Chunwei, Zhang Liang, Fang Jianjun, Diao Yifan, Luo Duo, Shu Jie, Xu Yangtao, Wang Yagang, Xu Zhiquan, Fan Weitao, Zhang Jie, Chen Yong, Wu Haitao, Zhao Jingbo, Chen Xiaohui, Zhao Wenjing, Han Xu, Peng Bin, Xie Dajin, Li Jin, Li Shengwen, Li Jiameng, Liu Chengxiong, Jia Lidan, Ding Zuoxin, Zhang Qi, Zhang Liping, You Tian, Lin Yuping, Liu Lu, Feng Shunlin, Sun Yunlin, Chen Bo, Zhou Ying, Ye Qingxiu, Wang Tengda, Yu Guobao, Ma Qingli, Pan Lei, Tang Kai, Zhang Qun, Luo Yuanqing, Zeng Xiangnan, Cai Haizhen, Li Minghuan, Tao

Wusong, Ju Xiaolei, Xin Tuo, Meng Qingfa, Bu Hongwei, Shang Huiliang, Wang Tongtong, Fu Ganhua, Wu Xiaoli, Bai Yan, Wu Cuigu, Liao Yanqun, Wei Yong, Xin Liang, Peng Chengquan, Zhong Huafeng, Zeng Weiqing, Zeng Dexiong, Zong Qiang, Miao Jiajun, Wu Zhao, Wang Jing, Wang Junlei, Hu Jiaqi, Liao Zhuoying, Peng Baoji, Lu Yongfei, Jiang Peng, Qing Peng, Liu Zhigang, Yuan Zongtao, Chen Xuan, Li Junping, Zhang Xiwei, Xu Xiaoyong, Jiang Wei, Wang Hailin, Zhou Shiquan, Wu Yue, Fan Bin, Xu Zenghui, Liu Sujun, Ma Quan, Xu Guangxing, Yin Xinjian, Chen Ying, Wu Hengyan, Liu Mengmeng, Cheng Qi, Dong Huazhan, Chen Feng, Huang Runjun, and Fan Xiugin.

Introduction

In recent years, the widespread use of photovoltaic modules in buildings has determined the types, structures, installation methods, and other aspects of photovoltaic modules that are integrated with buildings.

However, the large-scale installation of building photovoltaic panels has also caused many problems in terms of structural safety, electrical safety, and power generation efficiency throughout the life cycle.

In order to strengthen the structural and electrical safety management of building photovoltaic modules and achieve quality and efficiency improvement throughout the life cycle, scientific and reasonable The paper proposes that the structure, electrical and other working parameters of building photovoltaic modules meet the requirements of safe and reliable operation.

The scrapping determination conditions and test methods provide users or holders with a basis for determining whether building photovoltaic modules need to be scrapped, and promote the scrapping of unsatisfied photovoltaic modules.

Effectively determine the scrapping of building photovoltaic modules based on safety requirements and usage functions to ensure the safety of buildings and the commercial value of building photovoltaic modules.

This document is used to determine whether building photovoltaic modules are scrapped, but not to determine whether building photovoltaic modules are repairable.

The repair of building photovoltaic modules that meet the scrap determination conditions shall be decided by the holder.

Technical requirements for scrapping photovoltaic modules

1 Scope

This document specifies the basic requirements for the scrapping of photovoltaic modules installed on buildings, as well as the process, conditions and requirements for scrapping determination.

This document applies to the determination of the scrapping of photovoltaic modules installed on buildings. Use as directed.

2 Normative references

GB/T 6495.1

GB/T 39525

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 scrap

The photovoltaic modules are discarded because they can no longer be used or their performance indicators do not meet the requirements.

[Source. GB/T 37217-2018, 3.3, with modifications]

4 Basic requirements for scrapping

4.1 When any of the following circumstances occur with photovoltaic modules installed on buildings (referred to as building photovoltaic modules), the scrapping determination procedure shall be initiated.

- a) Abnormal appearance;
- b) The string power generation is abnormal;
- c) reaching or exceeding the service life;
- d) Encountering disasters that exceed safety design standards;
- e) Other abnormal circumstances.

4.2 The scrapping determination process of building photovoltaic modules should not have a negative impact on the environment and safety.

4.3 When on-site testing is not possible due to limited conditions, other methods may be used to conduct the test.

5 Scrap determination process

5.1 The scrapping determination of building photovoltaic modules shall be carried out according to the process in Figure 1.