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

GB/T 46812-2025

**Technical specification for the operation control of combined
wind, photovoltaic and energy storage power stations**

风光储联合发电站运行控制技术规范

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Table of Contents

1.Scope	1
2 Normative References	1
3.Terms and Definitions	1
4.General Requirements	2
5.Operating Mode	2
6 Power Control	2
7.Operational adaptability	4
8 Power Quality	4
9.Relay protection and automatic safety devices	5
10 Scheduling Automation and Communication	5
11.Cybersecurity	5
13 Operations Management	6
14 Verification Methods	7

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1.Structure and Drafting Rules of Standardization Documents". Drafting. 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 proposed and is under the jurisdiction of the China Electricity Council. This document was drafted by: China Electric Power Research Institute Co., Ltd., State Grid Corporation of China, and Datang (Hainan) New Energy Development Co., Ltd. The company, State Grid Corporation of China East China Branch, State Grid Anhui Electric Power Company, State Grid Shandong Electric Power Company, Southeast University, State Grid Xinjiang Electric Power Co., Ltd., and Pinggao Group Energy Storage Technology Co., Ltd. The main drafters of this document are. Zhang Zhenyu, Sang Bingyu, Dong Cun, Tao Yibin, Zhou Caiqi, Zhu Shaojie, Li Kecheng, Chen Zhilei, Li Jianhua, and Li Zhi. Miao Weiwei, Yang Zhihao, Li Guanjun, Li Haoyuan, Tian Gangling, Zhang Yanjing, Jing Guodong, Dong Wei, Wu Zaijun, Lu Jianyu, Ye Haifeng, Sun Qizhen Li Guoqing, Fan Bingjian, Zhao Jun, He Jing, Ju Rongrong, Hu Zhe, Han Guigang, Ruan Peng, Lin Xiaojin, Qin Hao, Yao Guangxiu. Operation and Control Technical Specifications for Combined Wind, Solar and Energy Storage Power Stations

1 Scope

GB/T 46812-2025 is the Chinese national standard covering controlling a hybrid plant as one machine - the dispatch of wind, solar and storage against a single set point, the smoothing and firming the storage provides, the state of charge management and the response to grid instructions. First edition, with the evaluation standard GB/T 47032-2026. It was issued on 31 December 2025 and has been in force since 1 April 2026, as a first edition. This page is published from the official record of the 2025 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document specifies the operation mode, power control, operational adaptability, power quality, relay protection and safety features of combined wind, solar and energy storage power stations. Technical requirements for actuators, automation and communication, network security, power metering, operation management, etc. This document applies to the operation and control of combined wind, solar and energy storage power stations connected to the grid at voltage levels of 35kV and above.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. 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 14285 Technical Specification for Relay Protection and Safety Automatic Devices

GB/T 19963.1 Technical Specifications for Wind Farm Connection to Power Systems Part

3 Terms and Definitions

The definitions in GB/T 19963.1, GB/T 19964, GB/T 36547, GB/T 51311, GB/T 51437, and DL/T 2528, and the following... The terms and definitions listed apply to this document.

3.1 A power station that combines wind power generation, photovoltaic power generation, and energy storage, all connected to the same grid point for joint operation and coordinated control.

Note. It is divided into wind power generation, photovoltaic power generation and energy storage combined power station, wind power generation and energy storage combined power station, and photovoltaic power generation and energy storage combined power station. [Source: GB/T 51437-2021, 2.0.1, with modifications]