

ICS 27.180
CCS P 61

NB

**ENERGY INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

NB/T 11372-2023

**Specification for construction quality inspection and evaluation
of wind power projects**

风电场工程施工质量检验与评定规程

Issued on: December 28, 2023

Implemented on: June 28, 2024

Issued by: National Energy Administration of the PRC

Table of Contents

1 General provisions	1
2 Terms	2
3 Basic requirements	4
4 Project division	6
5 Work procedures of quality inspection and evaluation	8
5.1 General requirements	8
5.2 Responsibility scope	8
5.3 Work procedures	9
6 Construction quality inspection	12
6.1 General requirements	12
6.2 Quality inspection requirements	12
6.3 Quality defect treatment	15
7 Construction quality evaluation	17
7.1 General requirements	17
7.2 Quality evaluation criteria	17
Appendix A Checklist of construction quality management system	19
Appendix B Record form for material and equipment acceptance inspection	20
Appendix C Division for works of wind power projects	23
Appendix D Record form for quality evaluation of wind power projects	47
Appendix E Record form for quality evaluation on important concealed works part or works part in critical position	66
Appendix F Quality evaluation method and requirements for appearance of unit or subunit project	67
Appendix G Record form for construction quality defects treatment of wind power projects	71
Explanation of wording in this specification	74
List of quoted standards	75
Addition: Explanation of provisions	77

Foreword

This document was issued on 28 December 2023 by the National Energy Administration of the PRC and takes effect on 28 June 2024.

It is a NB/T standard: recommended rather than compulsory, but it is the text a Chinese reviewer applies when assessing a submission.

It is classified under ICS 27.180, Chinese classification P 61.

This specification has been prepared in accordance with the requirements of the Notice of the General Department of the National Energy Administration on Issuing the 2022 Plan for the Preparation and Revision of Industry Standards in the Energy Field and the Plan for Translation of Foreign Language Versions (Guo Neng Zong Tong Ke Ji [2022] No. 96). The preparation group carried out extensive investigation and research, earnestly summarized practical experience, and formulated this specification on the basis of a wide solicitation of opinions.

The main technical contents of this specification are: general provisions; terms; basic requirements; project division; work procedures of quality inspection and evaluation; construction quality inspection; and construction quality evaluation.

This specification is administered by the National Energy Administration. It is proposed by, and placed under the day-to-day administration of, China Renewable Energy Engineering Institute. The Sub-Technical Committee on Wind Farm Construction and Erection of the Wind Power Standardization Technical Committee of the energy industry (NEA/TC1/SC2) is responsible for the interpretation of its specific technical contents.

Should any opinion or suggestion arise in the course of implementation, it should be sent to China Renewable Energy Engineering Institute (address: Jia No. 57 and Yi No. 57, Andingmenwai Street, Dongcheng District, Beijing, postcode 100011).

Chief development organizations of this specification: China Renewable Energy Engineering Institute; PowerChina Huadong Engineering Corporation Limited; PowerChina Guiyang Engineering Corporation Limited.

Participating development organizations of this specification (part one): Quality Supervision Station of Renewable Energy Power Generation Projects; Guangzhou Huashen Construction Engineering Management Co., Ltd.; CCCC Third Harbor Engineering Co., Ltd.; Shanghai Donghua Construction Management Co., Ltd.

Participating development organizations of this specification (part two): China Energy Engineering Group Jiangsu Electric Power Construction No. 1 Engineering Co., Ltd.; State Power Investment Corporation Jiangsu Electric Power Co., Ltd.; PowerChina Beijing Engineering Corporation Limited.

Main drafters of this specification: Yu Jialin, Shen Jinning, Zhang Guanghui, Li Xiang, Xu Hui, Wang Ning, Shi Beiling, Li Min, Tian Hongwei, Zhao Shengxiao, Xia Yanhui, Dong An, Chang Haotian, Zhu Jianying, Zhang Chengqin, Kang Wenhe, Xue Jianfeng, Cheng Li, Xu Jian, Fan Xingfa, Xu Ouyang, Zhao Chaozhi, Li Shilin, Zhao Yi, Jing Lei, Cheng Zhengfei, Xiong Ao, Liu Lu, Jiang Yue, He Jialong, Liu Biao.

Main reviewers of this specification: Chang Zuowei, Wang Longfei, Wang Yingchun, Dong Mengyong, Cao Huojian, Wang Xue, Yu Gang, You Xianhui, Zhuang Yanjun, Zhang Jianwei, Chen Ye, Zhang Zhiwei, Qu Jiangjiang, Cao Yuanyuan, Li Shisheng.

Editor-in-chief department: China Renewable Energy Engineering Institute. Approving department: National Energy Administration. Date of implementation: 28 June 2024. The specification is published by China Electric Power Press, Beijing, 2024.

Announcement of the National Energy Administration

National Energy Administration, Announcement No. 8 of 2023.

In accordance with the Standardization Law of the People's Republic of China and the Measures for the Administration of Energy Standardization, the National Energy Administration has approved 281 energy industry standards headed by Basic technical specification for intelligent construction of new energy stations (Annex 1), 33 foreign language versions of energy industry standards headed by Specification for Preparation of Special Geological Report on Impoundment-Affected Area for Hydropower Projects (Annex 2), and 3 amendment notices of energy industry standards headed by Technical code for radioactive detection of hydropower projects (Annex 3), which are hereby issued.

Annexes: 1. Catalogue of industry standards; 2. Catalogue of foreign language versions of industry standards (omitted); 3. Amendment notices of industry standards (omitted). Issued by the National Energy Administration on 28 December 2023.

In the catalogue of industry standards forming Annex 1, item No. 37 is NB/T 11372-2023, Specification for construction quality inspection and evaluation of wind power projects, with no superseded standard and no adopted standard number shown, approval date 2023-12-28 and implementation date 2024-06-28.

1 Scope

NB/T 11372-2023 sets out how construction quality is inspected and evaluated on wind farm projects in China. It turns a wind farm - which is a few dozen turbines spread over a wide site, plus roads, cabling and a substation - into a structured inspection scheme, so that quality is judged the same way by everyone and at every location. The specification defines the terms used, the basic requirements on the parties and their responsibilities, and the division of the project into unit works, sub-unit works, item works and inspection lots. It then gives the inspection content and the evaluation criteria for each kind of work: earthworks and site roads, turbine foundations in their several types including pile and rock-anchored foundations, concrete and reinforcement, the erection of tower, nacelle and blades with the bolt tightening and alignment records that go with it, the buried collection cabling and overhead lines, the step-up substation with its civil works, transformers, switchgear, protection, control and earthing, and the communication and monitoring

systems. For each checkpoint it states the permitted deviation, how it is measured and how many measurements are required, together with the documentation that must accompany the record. The rules for grading an inspection lot and for rolling those grades up to the project as a whole, the handling of non-conforming work, and the acceptance records complete the specification.

1.0.1 This specification is formulated in order to strengthen the quality management of the construction of wind power projects and to standardize the inspection and evaluation of construction quality.

1.0.2 This specification is applicable to the inspection and evaluation of the construction quality of newly built, rebuilt and extended wind power projects.

1.0.3 In addition to complying with this specification, the inspection and evaluation of the construction quality of wind power projects shall also comply with the provisions of the relevant current national standards.

2 Terms

2.0.1 project quality

The sum of the characteristics of a project in respect of function, performance, safety, environmental protection and other aspects.

2.0.2 quality inspection

The conformity evaluation carried out on the quality characteristic indexes of a project by means of examination, measurement, testing and other methods.

2.0.3 quality evaluation

The activity of comparing the results of quality inspection with the national and industry technical standards and with the quality acceptance criteria agreed in the contract.

2.0.4 unit project

A building or structure that is able to perform its function independently or that possesses independent construction conditions, including the equipment works associated with that building or structure.

2.0.5 subunit project

A part of a unit project of relatively large scale which can be further subdivided and which possesses an independent function or independent construction conditions.

2.0.6 works section

The building and installation works within one building or structure which in combination are able to perform one function; it is a part making up a unit project.