

ICS 27.180

CCS F 11



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

GB/Z 35482-2017

Wind turbines -- Time-based availability

Issued on: December 29, 2017

Implemented on: July 1, 2018

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China, Standardization
Administration of the People's Republic of China**

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3.1 Terms and definitions

Foreword

This guidance technical document was drafted in accordance with the rules given in GB/T 1.1-2009.

This guidance document uses the translation method equivalent to IEC /T S61400-26-1.2011 "Wind Generators Part 26-1.

Time availability.

The documents of our country that have a consistent correspondence with the international documents that are normatively cited in this guidance document are as follows.

---GB/T 18451.1-2012 Wind turbine design requirements (IEC 61400-1.2005, IDT)

The following editorial technical documents have been edited as follows.

--- "IAN" corrected to "IANO";

--- "IANSM" corrected to "IANOSM";

--- "IANPCA" corrected to "IANOPCA";

--- "IANFO" corrected to "IANOFO";

--- "IANS" corrected to "IANOS";

--- (B.2)~ (B.5) "IAONPP" is corrected to "IAOGPP".

This guidance technical document was proposed by the China Machinery Industry Federation.

This guidance document is under the jurisdiction of the National Wind Machinery Standardization Technical Committee (SAC/TC50).

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Introduction

This guidance document is intended for owners, power companies, creditors, operators, manufacturers, consulting agencies, and supervisors in the wind power industry.

When the regulatory agencies, certification bodies, insurance companies, and other interested parties exchange information about performance indicators, establish a common foundation and build

An information model that provides a way to assign specific time periods to different categories of information. Calculating wind turbine availability and reliability

When the indicator is used, the model provides a basis for how to allocate time.

In order to explain the availability, service life, maintenance and determination of maintenance intervals for wind turbines and components, this guidance is provided.

The article defines the general terminology required for wind turbines, environmental constraints, and calculations of wind turbine availability measurements. Availability

The measured values are related to the power generation time of the wind turbine, taking into account environmental factors. These environmental factors include wind conditions and other weather strips

Pieces, as well as the status of the grid and substation. In addition, this guidance document provides information on the capacity or capacity of wind turbines.

The terminology required for the indicator. In this guidance technical document, the basic information category is enclosed in double quotation marks, and the optional information category is in bold.

Said.

IEC /T S61400-26 is divided into the following two parts, covering all of the above.

---IEC /T S61400-26-1 specifies the terms of time-based availability of wind turbines;

---IEC /T S61400-26-2 specifies the terminology related to the availability of wind turbines based on power generation.

Wind turbine time availability

1 Scope

This guidance document specifies the general information categories for the time period specified by the wind turbine, taking into account the internal and external time of the time period.

Ministry of the situation, and explain the following.

--- General information categories related to wind turbine availability and other performance indicators;

---Information category priority order to distinguish the existing categories;

---Admission and exit conditions for each category of information to categorize time;

---Informative appendix includes.

* Examples of optional information categories;

* Examples of algorithms for availability and performance indicators;

* Application examples.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 2900.53-2001 Electrotechnical terminology wind turbine (idt IEC 60050-415.1999)

IEC 61400-1 Wind Turbine Design Requirements (Windturbines-Designrequirements)

3 Terms, definitions and abbreviations

The following terms and definitions and abbreviations as defined in GB/T 2900.53-2001 apply to this document.

3.1 Terms and definitions

3.1.1

Availability availability

The proportion of wind turbines that perform the expected service run time within the design specifications for a given period of time.

3.1.2

Design specification

Accurate and understandable information related to product design requirements.

Its content provides detailed functional and non-functional requirements including assumptions, limitations, performance, size, weight, reliability and standards. example

For example, the specifications and design considerations described in IEC 61400-1 describe the processes required to develop a wind turbine design specification.

3.1.3

External condition externalconditions

External conditions affecting the operation of wind turbines, such as (i) exceeding environmental conditions; (i) exceeding electrical specifications.

3.1.4

Permanent storage of permanentstorage

Whether you turn off the storage device or move the storage device to another computer, you can still save the data or store the contents of the computer.