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**Wind energy generation systems - Availability for wind power
stations**

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3.1 Terms and definitions

Foreword

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

This standard uses the translation method equivalent to IEC /T S61400-26-3..2016 "Wind Power Generation System Part 26-3. Wind Farms

Availability ".

The Chinese documents that have a consistent correspondence with the international documents referenced normatively in this standard are as follows.

--- GB/T 2900 (all parts) Electrical term [IEC 60050 (all parts)]

--- GB/T 2900.53-2001 Electrical terminology for wind turbines (idt IEC 60050-415..1999)

The following editorial changes have been made to this standard.

--- According to the standard content, correct the following information in IEC /T S61400-26-3 "3.2 Abbreviations of available information".

* "IAPP" is corrected to "IASP";

* "IAPA" is corrected to "IASA";

* "IAOPA" corrected to "IAOSA";

* "IAOPP" is corrected to "IAOSP";

* "IAOSPA" is corrected to "IAOSSA";

* "IAOSPP" corrected to "IAOSSP";

* "IAOSFPPA" was corrected to "IAOSFPSPA";

* "IAOSFPPP" corrected to "IAOSFPSP";

* "IAOSPPPA" was corrected to "IAOSPPSA";

- * "IAOSPPPP" corrected to "IAOSPPSP";
- * "IAOSPPDRPA" was corrected to "IAOSPPDRSA";
- * "IAOSPPDRPP" was corrected to "IAOSPPDRSP";
- * "IAOSPPDGPA" was corrected to "IAOSPPDGSA";
- * "IAOSPPDGPP" is corrected to "IAOSPPDGSP";
- * "IAOSRSPA" is corrected to "IAOSRSSA";
- * "IAOSRSPP" corrected to "IAOSRSSP";
- * "IAOOSPA" was corrected to "IAOOSSA";
- * "IAOOSPP" is corrected to "IAOOSSP";
- * "IAOOSTSPA" is corrected to "IAOOSTSSA";
- * "IAOOSTSPP" corrected to "IAOOSTSSP";
- * "IAOOSENPA" was corrected to "IAOOSENSA";
- * "IAOOSENPP" was corrected to "IAOOSENSP";
- * "IAOOSENCPA" is corrected to "IAOOSENCSPA";
- * "IAOOSENCPP" corrected to "IAOOSENCSP";
- * "IAOOSENOPA" is corrected to "IAOOSENOSA";
- * "IAOOSENOPP" is corrected to "IAOOSENOSP";
- * "IAOOSELPA" was corrected to "IAOOSELSA";
- * "IAOOSSELPP" corrected to "IAOOSSELSP";
- * "IAOOSRSPA" was corrected to "IAOOSRSSA";
- * "IAOOSRSPP" corrected to "IAOOSRSSP";
- * "IANOPA" is corrected to "IANOSA";
- * "IANOPP" is corrected to "IANOSP";
- * "IANOSMPA" was corrected to "IANOSMSA";
- * "IANOSMPP" is corrected to "IANOSMSP";
- * "IANOPCAPA" is corrected to "IANOPCASA";
- * "IANOPCAPP" was corrected to "IANOPCASP";
- * "IANOFOPA" is corrected to "IANOFOSA";

* "IANOFOPP" was corrected to "IANOFOSP";

* "IANOSPA" was corrected to "IANOSSA";

* "IANOSPP" is corrected to "IANOSSP";

* "IAFMPA" is corrected to "IAFMSA";

* "IAFMPP" is corrected to "IAFMSP".

--- Increased the number of references.

This standard is proposed by China Machinery Industry Federation.

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

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Introduction

This standard is intended for owners, power companies, creditors, operators, manufacturers, consultants, regulators,

When the certification agencies, insurance companies and other related parties exchange information about the availability of wind farm indicators, a common foundation is established. During power generation and

In the field of power transmission, a large number of interactive interfaces related to energy or information have emerged from many related parties. Figure 1 clarifies the relationship between power generation and asset management

Related internal and external factors, and put forward a series of related terms. This standard provides the division of specific time periods by building an information model.

Method for allocating different information categories. When calculating the availability of wind turbines, the model provides a basis for how to allocate time.

Figure 1 Related parties of wind farm data

In order to explain the availability, service life, maintenance, and maintenance interval standards of wind turbines and components, this standard defines wind

Generic terms for power plant systems, environmental constraints, and calculations of energy availability measurements for wind turbines. Wind Turbines

A group contains all the devices between it and the access point 1). The availability is related to the time and/or power generation of the wind turbine, and at the same time

Taking environmental factors into consideration. These environmental factors include wind and other weather conditions, as well as the state of the power grid and substations. In addition, this standard also

Provides the terminology required for performance indicators related to the availability of wind turbine power generation.

In this standard, basic information categories are indicated by double quotation marks, and optional information categories are indicated in bold.

1) See IEC 60050-415..1999,415-04-01 for definitions.

Wind power generation system availability

1 Scope

This standard provides a calculation framework for the time availability and service output availability performance indicators of wind farms, and describes the data categories.

Method, and an example of applying the data to calculate the availability index is given.

This standard applies the terms and definitions in GB /Z 35482-2017 and GB /Z 35483-2017 models to wind farms.

The basic method of this standard is to assume that the entire wind farm can be modeled as a single wind turbine to represent the entire wind farm.

The wind farm is an aggregate of all wind turbines, functional services and supporting facilities of the wind farm at the grid connection point.

The purpose of this standard is not to specify calculation methods for time availability and service output availability, nor to measure power curve performance.