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ICS 01.040.29

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GB/T 2900.50-2008

Replacing GB/T 2900.50-1998

**Electrotechnical Terminology - Generation, Transmission
and Distribution of Electricity - General**

电工术语 发电、输电及配电 通用术语

(IEC 60050-601:1985, MOD)

Issued on: June 18, 2008

Implemented on: May 1, 2009

**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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Foreword

This is Part 50 of GB/T 2900.

This Part modifies and adopts IEC 60050-601:1985 *International Electrotechnical Vocabulary - Chapter 601: Generation, Transmission and Distribution of Electricity - General*, and modifies the definitions of some terms and adds Appendix A with reference to the document (1/1902/CD) released by the International Electrotechnical Commission in 2003.

In comparison with IEC 60050-601:1985, this Part has the following technical differences:

---601-01-33 is added.

---The definitions of 601-01-17, 601-01-10, 601-02-06, 601-02-32, 601-02-33 and 601-03-10 are modified.

---“601-01-28 middle voltage (MV)” is deleted.

---The abbreviation of the English term “gas insulated line” in “601-03-06 gas insulated line” does not use the original “GIC” by the IEC, instead, “GIL”, which is currently officially adopted internationally and in China is adopted.

---In accordance with 1/1902/CD, the following terms are added:

601-02-28 circuit (in electric power systems);

601-02-29 line tap, tee point;

601-02-30 line section;

601-02-31 line segment;

601-02-32 interchange point;

601-02-33 delivery point.

---Appendix A (normative) is added, which supplements several terms regarding voltage levels (in accordance with the terminology of electricity approved by China National Committee for Terminology in Science and Technology).

This Part serves as a replacement for GB/T 2900.50-1998 *Electrotechnical Terminology - Generation, Transmission and Distribution of Electricity - General*.

In comparison with GB/T 2900.50-1998, the main changes are as follows:

---The entry number of the terms is modified;

---The definitions of some terms are modified;

Electrotechnical Terminology - Generation, Transmission and Distribution of Electricity - General

1 Scope

This Part specifies the terms related to the common parts in the generation, transmission and distribution of electricity.

This Part applies to the planning, management and design of the electrical power system, as well as the generation, transmission and distribution of electricity, etc.

2 Terms and Definitions

2.1 Basic Terminology

601-01-01 electrical power system; electricity supply system

The combination of all devices and equipment for the generation, transmission and distribution of electricity.

601-01-02 electrical power system; electrical power network

The combination of various devices and equipment for the transmission and distribution of electricity, and substations, electric lines or cables.

NOTE: the boundaries of each part of the electricity grid can be determined on a case-by-case basis (for example, geographical location, ownership and voltage level, etc.).

601-01-03 alternating current system; AC system

A system powered by AC voltage.

601-01-04 direct current system; DC system

A system powered by DC voltage.

601-01-05 power frequency

The nominal frequency value of an AC power system.

601-01-06 generation of electricity

The process of converting other forms of energy into electricity.

601-01-07 conversion of electricity

change of electricity

The characteristic of changing current, voltage and frequency by a converter.

601-01-08 transformation of electricity

Transformation of electrical energy through a power transformer.

601-01-09 transmission of electricity

Transmission of electrical energy from power stations to regions where electricity is consumed.

601-01-10 distribution of electricity

Supply electricity to users in an electricity consumption region.

601-01-11 interconnection (of power systems)

Between electrical power systems, the exchange of electrical energy is carried out through the connection of circuits and (or) converters, transformers and other equipment.

601-01-12 interconnected systems

A system, in which, several electrical power systems are connected by interconnected lines.

601-01-13 asynchronous link

A connection between AC systems operating at different frequencies.

601-01-14 short-circuit power

The product of the short-circuit current at a point in the system and the agreed voltage (usually referred to as the operating voltage).

601-01-15 load in a system

- 1) active, reactive or apparent power generated, transmitted or distributed within a system.
- 2) the power required by a group of users divided in accordance with their characteristics and properties (such as: thermal load and daily reactive power load, etc.).

601-01-16 peak load

The maximum value of the load during a given period (for example, a day, a month or a year).

601-01-17 load curve

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