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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

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Solar thermal electric plants - Terminology

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Foreword

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

The translation method used in this standard is equivalent to IEC TS62862-1-1.2018 "Solar Thermal Power Station Part 1-1.Terminology".

This standard has made the following editorial changes.

---In order to be consistent with the existing standard series, the standard name is changed to "Solar Thermal Power Station Terminology";

---Deleted Note 2 of 3.4.3, Note 3 of 3.4.8 and Note 3 of 3.4.17.

1 Scope

This standard defines the main terms and definitions of solar thermal power station (STE), and aims to provide a reference for industry users.

Solar thermal power plants are usually composed of three main systems. heat collection system, power generation system and heat storage system.

Since the components and configuration of the solar thermal power station depend on the solar heat collection technology used (i.e. tower, parabolic trough, parabolic

Surface dish or linear Fresnel heat collection technology), so some terms do not apply to all types of solar thermal power plants, which are already in its definition

Introduce notes for clarification.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article

Pieces. For undated reference documents, the latest version (including all amendments) is applicable to this document.

ISO 9488.1999 Solar energy term (Solarenergy-Vocabulary)

3 Terms and definitions

The following terms and definitions apply to this document.

ISO and IEC maintain a terminology database for standardization at the following website

3.1 Systems, subsystems and components

3.1.1

Absorber

A component in a solar collector that absorbs solar radiant energy and transfers heat to the heat transfer fluid.

3.1.2

Absorbercover

The transparent part covering the heat sink is used to reduce the heat loss of the heat sink and protect it from the external environment.

Note. When the cover layer is made of glass, it is usually called "glass cover".

3.1.3

Effective length of linear heat sink activelengthofalinearreceiver

At the reference temperature, the length of the heat sink that receives the focused solar radiation.

Note 1.In general, the reference temperature is 25°C. The length of the heat sink is the exposed part that is not blocked by shadows, and the surface normally absorbs the part of

the solar radiation.

length.

Note 2.Unit. The international unit is m.

3.1.4

Auxiliary heater

A device that heats the heat transfer fluid by consuming other non-solar fuels.