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**Technical requirements for collector system of solar power
tower plant**

塔式太阳能光热发电站集热系统技术要求

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting is required.

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

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Tower solar thermal power station heat collection system Technical requirements

1 Scope

This document specifies the overall requirements for the solar thermal tower power station collection system, the concentration system, the heat absorption system, and the system coordination technology.

Requirements and testing requirements.

This document applies to the design, manufacture, testing, inspection, operation and maintenance of the collection system of tower solar thermal power stations.

2 Normative references

GB/T 40104

GB/T 41303

GB/T 44140

3 Terms and definitions

The terms and definitions defined in GB/T 40104 and the following apply to this document.

3.1 Collector system

A system that concentrates solar energy and converts it into heat.

[Source. GB/T 51307-2018, 2.0.5, modified]

3.2 Concentrating solar system

All related systems and equipment that use heliostats to reflect the sun's normal direct radiation to a predetermined position on the heating surface of the absorber.

3.3 Receiver system

A device that transfers the heat energy of solar radiation collected by a concentrating system to the heat transfer fluid flowing inside the absorber.

Note. The heat absorption system includes the heat absorber body and the auxiliary systems required for the startup, operation, shutdown and accident stages.

3.4 Heliostat field

An area consisting of multiple heliostats that focus solar radiation onto a heat sink.

Note. The heliostat field is also called the mirror field.

[Source. GB/T 51307-2018, 2.0.12]

3.5 Heat collection

The net heat absorbed by the heat transfer medium through the absorber over a period of time.