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

GB/T 1028-2018

Replacing GB/T 1028-2000

Industrial surplus energy resources evaluation methods

工业余能资源评价方法

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Table of Contents

Foreword

1 Scope

About this edition

Classification and status

How a Chinese national standard is set out

About this English translation

Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard replaces GB/T 1028-2000 "Industrial waste heat terminology, classification, grade and calculation method of waste heat resources". Compared with GB/T 1028-2000, the main technical changes of this standard are as follows:

- Expanding waste heat into residual energy and perfecting terms related to residual energy (see Chapter 2, Chapter 2 of the.2000 edition);
- Removed the terminology of common industrial waste heat recovery equipment (see Chapter 2 of the.2000 edition);
- Improved the classification of industrial residual energy (see Chapter 3, Chapter 3 of the.2000 edition);
- Improved the evaluation method of industrial residual energy resources (see Chapter 4, Chapter 4 of the.2000 edition);
- Added a comprehensive evaluation table of industrial residual energy (see 4.7). This standard is proposed and managed by the National Energy Foundation and Management Standardization Technical Committee (SAC/TC20). This standard was drafted. China National Institute of Standardization, Huazhong University of Science and Technology, Shanghai Baosteel Energy Conservation and Environmental Protection Technology Co., Ltd., PetroChina General Planning Institute of Natural Gas Co., Ltd., Jiangsu Yuxin Technology Co., Ltd., Electric Power Research Institute of Guangdong Power Grid Co., Ltd., MCC Southern Engineering Technology Co., Ltd., Guangdong Yudean Yunhe Power Generation Co., Ltd., Maoming Maogang Power Equipment Factory Co., Ltd., Guangdong Yigao Thermal Energy Technology Co., Ltd., Guorui Ward (Beijing) Low Carbon Economic Technology Center, Beijing Sinochem Joint Certification Co., Ltd., Beijing Zhongdian Power Enterprise Management Consulting Co., Ltd., Shaanxi Huadian Yangling Thermal Power Co., Ltd., Wuhan Anhe Energy Saving New Technology Co., Ltd. The main drafters of this

standard. Liu Wei, Li Yan, Ruan Shiping, Cao Xianchang, Xie Hongjun, Zhou Yuanbo, Shao Yuanjing, Liu Zhichun, Lu Shengjie, Song Jinghui, Jiang Ping, Yang Peikai, Yao Wei, Wang Jianfu, Yang Desheng, Liu Yumei, Gu Limin, Xu Hailun, Chen Chi, Long Yu, Yan Qinglong, Xue Yulong, Feng Xiaoming, Zhang Ying, Lv Xiaolong, Wang Qin. The previous versions of the standards replaced by this standard are.

---GB/T 1028-1989, GB/T 1028-2000. Industrial residual energy resource evaluation method

1 Scope

GB/T 1028-2018 is the Chinese national standard on industrial surplus energy resources evaluation methods, in the field of energy and heat transfer engineering. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 17 September 2018 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 April 2019. Classification: ICS 27.010, CCS F01. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard defines terms related to industrial residual energy and specifies the classification and evaluation methods for industrial residual energy. This standard applies to the evaluation of industrial residual energy resources.

2 Terms and definitions

The following terms and definitions apply to this document.

2.1 Yuen surplusenergy The industrial production process system consumes the input energy and outputs the available energy.

2.2 Remnant carrier surplusenergycarrier Contains residual energy.

2.3 Remaining energy quantityofsurplusenergy The amount of energy.

2.4 Theory can use the remaining energy theoreticallyavailablequantityofsurplusenergy Based on the standard environmental parameters (temperature 25 ° C, pressure

0.1 MPa) and complete oxidation reaction materials, the residual energy carrier has energy.

2.5 Technical economy available spare energy

technicalyandeconomiclyavailablequantityofsurplusenergy After the technical and economic assessment, the maximum available residual energy with the economic value of recovery is

determined.

2.6 Recover utilization rate recovery rate of surplus energy The residual energy recovered and the theoretical available residual energy ratio.

Note. expressed as a percentage.

2.7 Waste heat surplus heat The industrial production process system consumes input heat and outputs available heat energy.

2.8 After pressure superplus pressure energy The industrial production process system consumes the input pressure energy and outputs the available pressure energy.

2.9 Chemical residual energy The industrial production process system consumes input chemical energy and outputs available chemical energy.