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

GB/T 12455-2010

Replacing GB/T 12455-1990

The rationality of electricity usage in guesthouse and hotel

宾馆、饭店合理用电

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Foreword

This standard replaces GB/T 12455-1990 "hotels, restaurants and rational use of electricity." This standard compared with GB/T 12455-1990, the main changes are as follows:

--- Original standard in Chapter 4 of the "air conditioning system" made to supplement and improve more content, such as increasing the "air-conditioning energy-saving technologies, air Conditioning system maintenance "and so on;

--- To increase the drainage system of rational use of electricity, including maintenance and other content;

--- Increased its hotels and restaurants in the kitchen, swimming pool, laundry room and other special places of power requirements;

--- Delete the original standard "cold" this part;

--- Added "Building Automation" section, including the "Energy Management Information Systems and BA, cold and heat sources and air-conditioning system monitoring", etc. content;

--- The original standard "electricity metering Assessment Analysis" section of the supplement and more perfect. This standard by the National Standardization Technical Committee for Energy Management and focal points. This standard was drafted. Tongji University, Anhui Construction Engineering College, Guangzhou Urban Planning Survey and Design Institute, Shandong Architectural Design Research Institute, China National Institute of Standardization, State Grid Corporation of demand side management guidance center, IPPR International Engineering Design and Research Institute, Guangdong

Construction Design and Research Institute, Shanghai with Fida Energy Technology Co., Ltd., Johnson Controls Building Equipment Technology (Wuxi) Co., Ltd., Jiangsu know people ventilators Preparation Company, Jiangsu Province, Nanjing Institute of Architectural Design, AIRSYS Services Limited air-conditioning systems. Drafters of this standard. Meng Hua, Wuxi Ping, Cheng Jianhong, Dike Jun, Dai Jian Chao, Yin Yao which Chen Zhong Hua, Zhang Hu, Li Gang, in Xiaoming Chen, Zhao Wencheng, Hong learn new Maowen Ping, Zhang Jianzhong, Jiang Changsheng, Chen Weimin. Hotels, restaurants and rational use of electricity

1 Scope

GB/T 12455-2010 is the Chinese national standard on the rationality of electricity usage in guesthouse and hotel, 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 10 November 2010 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 February 2011. 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 specifies the hotels and restaurants of the supply and distribution systems, HVAC, water supply and drainage systems, lighting systems, energy information management and building automation Control (BA) system, electricity metering, analysis and evaluation methods and requirements. This standard applies to both, is running from one to five-star standard tourist hotels, restaurants and other hotels, restaurants, guest houses, The new design of the respective buildings can also be implemented by reference.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 14549 Power quality utility grid harmonic

GB 19210 air conditioning and ventilation system cleaning specifications

3.1 Rational supply and distribution

3.1.1 substation should have two line power supply, it is important to be self-independent emergency power load. Its location should be close to the load center, According to the case load distribution, high-rise buildings should be in an intermediate layer disposed substation.

3.1.2 within the substation suffered power supply voltage terminals rated voltage tolerance of the normal range, the offset voltage electrical equipment value should not be large Rated voltage of $\pm 5\%$.

3.2 single-phase electrical equipment should be evenly connected to the three-phase network, voltage unbalance supply network should be less than 2%.

3.3 line loss rate to the receiving end of the electrical equipment, a transformer for power supply and distribution system line loss rate should not exceed 3.5%.

3.4 transformer selection, configuration and operation

3.4.1 According to the actual power load, the choice of energy-saving low-loss transformers, the rational allocation of capacity and the number of units of the transformer.

3.4.2 Transformer total loss minimization principle, optimizing transformer operation mode, economically rational allocation of electricity load.

3.5 rational allocation of reactive power compensation equipment, improve the power factor of electricity, electric power factor compensation to be

0.9 or more.

3.6 Variable equipment inside the substation should be equipped with appropriate measurement and measurement instruments. Monitor and record voltage, current, power, power factor, and there are Reactive power, reactive power, power measuring instruments accuracy class of

1.0 to 0.5. Nonlinear loads

3.7 electrical equipment is harmonic source, easy to cause the grid current and voltage waveforms, harmonic pollution, should be taken to suppress Measures harmonics, meet the requirements of GB/T 14549 requirements.

4.1 HVAC system

4.1.1 the air conditioning system at run-time indoor temperature and humidity control values in Table 1.