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**Economic evaluation of power quality - Part 2: Economic
evaluation method for the distribution network**

电能质量经济性评估 第2部分：公用配电网的经济性评估方法

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Foreword

"Power Quality and Economic Evaluation" is divided into three parts.

- Part 1. Economic assessment of power users (GB /Z 32880.1);
- Part 2. Economic evaluation of public distribution networks (GB /Z 32880.2);
- Part 3. Methods of data collection (GB/T 32880.3).

This section is the second part of "Power Quality and Economic Evaluation".

This section drafted in accordance with GB/T 1.1-2009 given rules.

Please note that some of this document may be patentable. The issuing agencies of this document do not bear the responsibility of identifying these patents.

This part is proposed and managed by the National Standardization Technical Committee of Voltage and Current Ratings and Frequency (SAC/TC1).

This part of the drafting unit. State Grid Jiangsu Electric Power Company Electric Power Research Institute, China Machine Productivity Promotion Center, North China Electric Power University, State Grid

Shanxi Electric Power Company Electric Power Research Institute, Anhui University, China

Electricity Council, the International Copper Association, State Grid Shanghai Electric Power Company

Electric Power Research Institute, China Power Construction Group Guangdong Electric Power Design and Research Institute, State Grid Smart Grid Research Institute, Southeast University, State Grid Beijing

City Power Company Electric Power Research Institute, NARI (Wuhan) Electrical Equipment and Engineering Energy Efficiency Assessment Center.

The main drafters of this section. Yuan Xiaodong, Liu Dan, Zhang Ping, Tao Shun, Wang Jinhao, Liu Juncheng, Li Qun, Zhu Mingxing, Lu Chonghui, Huang Wei,

Chen Zhigang, Zhou Zuochun, Zhou Shengjun, Gu Wei, Peng Xudong, Sun Hao.

Power Quality and Economic Evaluation

Part 2. Economic evaluation of public distribution networks

1 Scope

This part of the standard specification of public power distribution network power quality and economic evaluation methods, given the typical power quality problems caused by public distribution

Network economic loss assessment methods and distribution network operators main power quality control program economic evaluation methods.

This section applies to the public distribution network in the economic evaluation of power quality problems. Other power plants and other distribution network with reference to the implementation.

2 Terms and definitions

The following terms and definitions apply to this document.

2.1 Power quality powerquality; qualityofpowersystem

Electrical characteristics of the power system at the designated point, relates to the power supply equipment for normal operation (or operation) of the voltage and current indicators of deviation from the base

The degree of quasi-technical parameters.

Note: The reference specifications generally refer to the value of the indicator under ideal power conditions. These parameters may relate to the compatibility between supply and load.

[GB/T 32507-2016, Definition 2.1.1]

2.2 Voltage Sag voltageag (voltage dig)

The root mean square value of power frequency voltage suddenly drops to 0.1pu ~ 0.9pu in power system, and after 10ms ~ 1min

Return to normal phenomenon.

Note: The IEC standard is reduced to the range of 0.01pu ~ 0.9pu.

[GB/T 30137-2013, Definition 3.1]

2.3 Short interruption of short interruptions

The root mean square value of power frequency voltage at a certain point in the power system suddenly drops below 0.1pu and resumes after a brief period of 10ms ~ 1min normal phenomenon.

[GB/T 30137-2013, Definition 3.2]

2.4 Harmonic (component) harmonic component

The non-sinusoidal periodic Fourier series decomposition, the frequency of the fundamental frequency is an integer multiple of the sine component.

[GB/T 32507-2016, Definition 2.6.7]

2.5 Interharmonic component

The periodic exchange of Fourier series decomposition, the frequency is not equal to an integral multiple of the fundamental component.

[GB/T 24337-1993, Definition 3.6]

2.6 Voltage fluctuation voltage fluctuation

Voltage rms (rms) A series of changes or continuous changes.

[GB/T 12326-2008, Definition 3.3]