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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 35031.5-2025

Customer energy management system - Part 5: Application interface specification

用户端能源管理系统 第5部分：应用侧接口规范

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1.Structure and Drafting Rules of Standardization Documents". Drafting. This document is Part 5 of GB/T 35031 "User-Side Energy Management System". GB/T 35031 has already published the following parts.

2.Main Site Functional Specifications;

1.General Requirements for Subsystem Interface Gateways;

2.Subsystem Interface Gateway Data Configuration;

4.Specifications for Information Interaction between the Main Station and the Gateway;

5.Application-Side Interface Specification;

6.Management Indicator System;

7.Functional Classification and System Hierarchy;

8.Use Cases Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed by the China Electrical Equipment Industry Association. This document is under the jurisdiction of the National Technical Committee on Standardization of Network Communication Interfaces for Electrical Equipment (SAC/TC411). This document was drafted by: Shanghai Electrical Apparatus Research Institute (Group) Co., Ltd., Shanghai Electrical Apparatus Research Institute, and China Three Gorges Corporation. Limited Liability Company, Yantai Dongfang Weiston Electric Co., Ltd., China Coal Technology & Engineering Group Shanghai Co., Ltd., Shanghai Huarui Zhongxin Technology Co., Ltd. XJ Electric Co., Ltd., State Grid Electric Power Research Institute Co., Ltd., Wanzhou Electric Co., Ltd., Acrel Electric Co., Ltd. The company, Shenzhen Power Supply Bureau Co., Ltd., Ningbo Tianan Smart Grid Technology Co., Ltd., Shenzhen Electric Power Technology Group Co., Ltd., Harbin Institute of Technology Information from. China University of Technology, China Quality Certification Center Co., Ltd., Nanjing Daquan Electric Research Institute Co., Ltd., and State Grid Hubei Electric Power Co., Ltd. Xin Company, Guomai Communication Planning and Design Co., Ltd., Shenzhen Xineng

Power Development and Design Institute Co., Ltd., Tsinghua Sichuan Energy Internet Research Institute, China Energy Engineering Group Guangxi Electric Power Design Institute Co., Ltd., Shanghai Jiao Tong University, Beijing University of Science and Technology, China Electric Power Research Institute Joint-stock company, Shenzhen Elink Network Security Co., Ltd., and Shanghai Liangxin Electric Co., Ltd. The main drafters of this document are. Xi Peifeng, Cai Zhongyong, Cui Ming, Tian Haitao, Wei Yong, Song Jie, Shao Hua, Ouyang Daosheng, Wu Xiaodong, and Tong Weiming. Zhang Shaodi, Jiao Fengshun, Cheng Cen, Yu Lingna, Zhou Xiao, Chen Junjie, Liu Liang, Lü Jiahui, Wu Xiangke, Zhao Shiyun, Xie Yongbin, Teng Yu, He Ke, Dong Liang Lai Xiukun, Li Xueming, Zhang Zhengfang, Lin Haifeng, Zhou Yongjin, Ju Changjiang, Xie Jianbo, Wu Yicong, Cui Hezhi, Hu Xin, Xie Ning, Pan Chongchao, Liu Cong Dai Jianping, Wu Geng, Pan Zhongqi, Li Cunkai, Wang Gang, Chen Meihua, Fu Xueqiang, Jin Bo.

GB/T 35031 "User-Side Energy Management System" is a recommended standard to guide the standardization of user-side energy management, aiming to achieve unified standards. Technical requirements, data interface models, and evaluation systems are needed to address the long-standing challenges faced by different manufacturers and stakeholders in my country's user-side energy management field. The problem of compatibility between users and different systems. Given that user-side energy management systems involve multiple dimensions such as systems and components, hardware and software, communication protocols, data interfaces, monitoring and evaluation, etc. The content of GB/T 35031 can be clearly divided into several relatively independent but interconnected parts, so GB/T 35031 is proposed to consist of eight parts.

1.Guidelines. Provides an architecture model and general requirements for user-side energy management systems.

2.Main Station Functional Specifications. This includes the functional architecture, functional definitions, and requirements of the user-side energy management system main station software.

1.General Requirements for Subsystem Interface Gateways. Includes the functional model, functional requirements, and electrical specifications of the subsystem interface gateway. General requirements for machinery, inspection, etc.

1 Scope

GB/T 35031.5-2025 is the Chinese national standard covering the interface between a customer's energy management system and the applications above it - the metering and load data it exposes, the control it accepts for demand response and storage, and the authorisation around both. Part 5 of the series, first edition, 29,500 words. It was issued on 31 December 2025 and has been in force since 1 July 2026, as a first edition. The document is under the responsibility of the China Electrical Equipment Industry Association. This page is published from the official record of the 2025 edition; the clause

text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document specifies the application program for information exchange between the user-side Energy Management System (CEMS) master station and the energy service platform. interface. This document applies to the development of application programming interfaces (APIs) for user-side energy management systems.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 7408-2005 Data Elements and Interchange Formats - Information Interchange - Representation of Date and Time GB /Z 32500-2016 General Requirements for Data Interfaces of Smart Grid User-End Systems

GB/T 35031.1-2018 User-side energy management system - Part

3 Terms, Definitions and Abbreviations

3.1 Terms and Definitions GB /Z 32500-2016, GB/T 35031.1-2018, GB/T 35031.2-2018,

GB/T 35031.302-2022, The terms and definitions defined in

GB/T 35031.4-2022, as well as the following terms and definitions, apply to this document.

3.1.1 A computerized information system used for monitoring and managing energy at the user end. Note

1.Cems represents a core object in CEMS, that is, a specific instance of CEMS. In the API interface, Cems is used to describe and manage... Basic information about the user client and associated access points.

Note 2.cems represents the user-side attributes and is associated with user-side Cems-related information. Note

3.In the API URL, cems indicates that the interface is applicable to user-side energy management systems.

3.1.2 Third-party providers of energy or those integrating and optimizing energy resources through digital means to offer users energy management, trading, monitoring, and other services. Fang platform.