



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

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Code for design of electric vehicle charging station

电动汽车充电站设计规范

(English Translation)

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Foreword

This Code is based on the requirements of Announcement on Issuing < 2010 Code for the Formulation and Revision Plan of the Engineering Construction Standard > (JB (2010) no.43) issued by the Ministry of Housing and Urban-Rural Development of the People's Republic of China. It was jointly formulated by State Grid Corporation of China and China Electricity Council, as well as the relevant organizations.

During the formulation of this Code, the drafting team conducts in-depth investigation, seriously summarizes the experience of EV charging station in China, draws lessons from the existing standards of related enterprises in China and relevant standards of foreign developed industrial countries, takes advices extensively, discusses for many times, and finally reviews and finalizes.

This Code is divided into 12 chapters and 1 appendix, which mainly includes the following technical contents. General provisions, terms and symbols, scale and site selection, general plane layout, charging system, power supply and distribution system, power quality, metering, monitoring and communication system, civil engineering, water supply and extinguishing installation for fire-fighting, energy saving and environment protection, etc.

The articles in bold-face marked in this Code are mandatory, which shall be executed strictly.

Ministry of Housing and Urban-Rural Development of the People's Republic of China is responsible for the management and interpretation of the mandatory provisions; the China Electricity Council is responsible for daily management; and the State Grid Corporation of China is responsible for the interpretation of the specific technical contents. If the specification needs to be revised and supplemented during the enforcement, please mail the opinions and suggestions to the State Grid Corporation of China (Address. No.86, West Chang'an Road, Xicheng District, Beijing, Postal code. 100031) for the reference of future revision.

Chief drafting organizations, participating drafting organizations, main drafters and main examiners of this Code.

Chief drafting organizations.

State Grid Corporation of China China Electricity Council Participating drafting organizations.

Beijing Economic and Technological Institute of Electric Power Code for design of electric vehicle charging station

1 General

1.0.1

In order to make the design of electric vehicle charging stations implement the relevant national policies and guidelines, unify the technical requirements, and to be safe and reliable, technologically advanced and economic reasonable, hereby this Code is formulated.

1.0.2 This specification applies to the design of electric vehicle charging stations using

vehicle charging mode.

1.0.3 The design of electric vehicle charging stations shall comply with the following principles.

1 Implementing national laws and regulations, and complying with the requirements of regional and national economy and social development planning.

2 Coordinating with the local regional master plan and the town planning.

3 Complying with the requirements of fire safety, electrical safety and environmental

protection.

4 Actively and steadily using new technology, new equipment and new materials to promote technological innovation.

1.0.4 In addition to complying with this Code, the design of the electric vehicle charging stations shall comply with the provisions of existing national standards.

2 Terms and symbols

2.1 Terms

2.1.1 Vehicle charging mode the manner of directly connecting the electric vehicle to the charging equipment through connection set for charging.

2.1.2 EV charging station Sites where provide electric energy to electric vehicle using vehicle charging mode shall include the charging equipment for 3 sets and more electric

vehicles (at least one off-board charger), related power supply units, monitoring equipment and other support equipment. Hereinafter referred to as charging station.

2.1.3 Charging system System that is consisted of all charging equipment, cables and related auxiliary equipment within the charging stations.

2.1.4 Charging equipment Equipment that connects to the electric vehicle or power storage battery, and supplies power for them, including on-board charger, off-board charger, AC charging piles and other equipment.

2.1.5 Off-board charger Special equipment that is rigidly installed on the ground converting the grid AC power to DC power and charging power to the electric vehicle power storage battery by use of the conduction mode.

2.1.6 AC charging piles...