

# Study on the Management Way of “Banning Electric Bicycles from Going Upstairs” in Tianjin

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## Abstract

In recent years, the number of electric bikes in Tianjin is close to 4.59 million. Since 2018, there have been 241 electric bicycle fires in Tianjin, with direct property losses of 1.36 million yuan. Although the newly revised “Tianjin Fire Control Regulations” was officially implemented on November 9, 2021, the problems of unclear division of management rights and responsibilities and weak law enforcement force have been unable to be solved. Through literature collection, questionnaire survey, grassroots research and other methods, the paper inspects the implementation of relevant policies in Tianjin residential communities, summarizes the outstanding problems, carries out the grass-roots law publicity, and puts forward a series of specific measures.

**Keywords:** fire protection law, electric bicycle, community governance

## 1. Introduction

### 1.1 Project Research Background

With the great advantage of the flat and open terrain of the North China Plain, Tianjin has become a city with a high penetration rate of electric bicycles. The widespread use of electric bikes is bound to have “more people and less land” electric bikes have no storage, unattended and other problems, so many people began to store their electric bikes in their own home corridor. However, this has become a huge safety hazard that causes fire and even endangers the safety of all residents. But China’s law has not been clear on the electric bicycle into the building.

Therefore, in 2021, China has successively revised and issued the “Fire Law” and the “Fire

Safety Management Regulations of High-rise Civil Buildings”, which clearly stipulates that parking electric bicycles or charging electric bicycles are prohibited in the public foyers, evacuation walkways, stairwells and safety exits of high-rise civil buildings. At the same time, Tianjin has also revised the Tianjin Fire Protection Regulations, which explicitly prohibit parking electric vehicles in public areas such as common walkways, stairwells and safety exits. Those who violate the provisions of these Regulations shall be ordered by the fire control and rescue institutions or the people’s governments of towns or sub-district offices to make corrections. Those who refuse to make corrections shall be given a warning or a fine of not more than 1,000 yuan. After the implementation of the new regulations, the

management of electric vehicles will be increased to reduce the possibility of fire.

Although the new version of the “regulations” made clear the electric bicycle management responsibility division and specific penalties, to the street, community governance electric bicycle problem pointed out the direction. But at the same time, the Regulations on where residents can charge, whether the streets and communities can communicate with the property community to strengthen the setting of safe charging facilities, facilitate people to charge, improve the relevant infrastructure, strengthen the construction and care of the shed and other aspects are still not clear, so there is room for refinement. At the end of September 2021, a fire caused by a battery explosion of an electric car occurred in Fangzhu Garden Community near Heiniucheng Road in Hexi District. The electric car was charging in the corridor when the incident happened. According to the staff of the Liujiang Road community neighborhood committee of Fangzhu Garden, this situation is relatively common in the old community. In the past, the community could only publicize and dissuade people, which led to poor governance effect.

## 2. Research Status and Its Significance

### 2.1 Domestic Research Status Quo

In China, most of the fire circles, community property management companies, various periodicals and newspapers have published the research and rectification of this phenomenon, and there are few studies in the legal circle. Therefore, this research has a certain innovative and constructive research significance at the academic level.

In his book *On the Property Title of the Civil Code of the People's Republic of China*, Professor CuiJianyuan discussed the distinction of building ownership: “the common part means the common part of the owner other than the exclusive part; the joint management refers to the management of the owner to distinguish the common parts of all buildings from the resulting joint firm. And the owner has the exclusive right to the exclusive part, and has the joint right and the joint management right to the common part.” Electric bicycle into the building occupied the stairwell, fire access caused considerable hidden dangers, the owner did not fulfill the obligation of the maintenance of the common part.

Li Gaowei said in the *Rethinking of the Different Ownership of buildings in the Vision of Civil Code* that common rights are the most easy to infringe and difficult to maintain the part of building different ownership. (Li Gaowei, 2021) In practice, there are many difficulties in the exercise and protection of common rights facing the weak awareness of owners' rights.

In the aspect of solving the problem of electric vehicle upstairs, commentator Zheng Xinyu clearly stated in the article *When to charge electric vehicle upstairs illegally?* that the safety management of electric bicycles should be “blocked” and “sparse”, charging difficult, expensive and unsafe is the key problem; proposed to explore solutions to more cities to introduce intelligent equipment needs multiple cooperation. (Zheng Xinyu, 2021) In the article *How to make electric vehicles no longer “capricious” upstairs*, Wu Jianzhong put forward the idea of the improvement measures for electric vehicles upstairs, advocating parking according to different functional zones, keeping the car distance when charging, installing the elevator “strike” artifact, and directly stop using the cart to prevent the electric vehicles upstairs. (Wu Jianzhong, 2022)

### 2.2 Research Significance

(1) The theoretical basis of the policy of “banning electric vehicles from entering homes”

Article 271 of the Civil Code stipulates that the owner enjoys the ownership of the building, and the common management of the exclusive part; Article 273 stipulates that the owner enjoys the rights and assumes the obligations of the common part other than the exclusive part of the building, and shall not perform its obligations on the grounds of waiving the right. At present, most of the residential areas are buildings, with almost multiple households on each floor. Residents have the right to use the common parts of the fire escape of the corridor elevator, and should also fulfill the corresponding maintenance and protection obligations. Residents' parking of electric bikes in public corridors blocks fire access and affects the legitimate rights and interests of other residents. And if this kind of behavior causes a fire, it may also bring huge loss of life and property.

(2) Practical significance

The personal and property safety risks brought by electric bicycles into the building is a new pain point for people's livelihood. Go to the

community level, strengthen the publicity and popularization of relevant knowledge, enhance the safety awareness of residents, and effectively safeguard the public rights and interests. At the same time, reasonable suggestions were put forward to the community to better cooperate with the implementation of the policy of banning electric bicycles, meet the needs of residents, solve the concerns of the masses, minimize the personal and property injuries caused by accidents to others, and protect the people's livelihood.

### (3) Theoretical significance

Through the investigation of the phenomenon of electric bicycles entering the building and the fire caused by electric bicycles in Tianjin, we can understand the relevant policies, laws and regulations of Tianjin for the safety risks of electric bicycles and the implementation of residential buildings, and gradually solve the concerns and different needs of residents. It can achieve better security measures, innovate and refine specific measures, for the implementation and implementation of policies across the country, also has reference significance.

### 3. Project Technical Route

(I) By collecting literature, sorting out materials, news reports, relevant comments, laws and regulations, government reports, etc., I had a preliminary understanding of the theoretical knowledge of electric vehicles entering the household, and laid a foundation for the follow-up work footing stone.

(II) Adopt the method of questionnaire survey to collect data (mainly data from Tianjin region) to provide solid scientific data support for the research work.

(III) On this basis, goes deep into the grassroots to practice, understands the actual situation of the grassroots and analyzes and proposes to make a targeted plan.

(1) First of all, by visiting the community, check the local electric vehicle entry situation and the supporting degree of infrastructure, understand the actual measures of the community for the prohibition of electric vehicle entry problem, contact representative cases, analyze the community in the management of electric vehicle entry situation and the deficiencies in infrastructure, and record them.

(2) Secondly, go to the community grassroots, through the distribution of leaflets, strengthen

the awareness of the policy of banning electric vehicles into the household, and interpret the policy behind the masses, the party and the government attach importance to the people's life, health and the safety and the concept of people first.

(3) Finally, put forward reasonable suggestions to the community to better cooperate with the implementation of the policy of banning electric vehicles from entering the household, and at the same time, effectively connect the reasonable concerns of the masses, so that the policy does not lack of humanistic care.

(IV) Writes a set of universal and feasible plans, and can be flexible according to different situations in different places, and the actual grass-roots combination, constantly improve and adjust, to form an independent mechanism

### 4. Research on the Management Way of "Banning Electric Vehicles to Go Upstairs"

In the process of online survey, a total of 157 valid questionnaires were collected. According to the questionnaire data, we formulated the following plan.

#### 4.1 We Will Improve Supporting Community Facilities

According to the collected data, 58.6% of the communities do not have perfect charging supporting facilities, so the top priority is to speed up the construction of community charging devices. First, improve the construction of community charging piles and car sheds. In the field research, it was found that some residential areas only installed charging sockets downstairs, but lack a ceiling. In bad weather such as rain and snow, residents only have to ride their electric bikes upstairs to charge them. Charging sockets and carports should be built to ensure the most basic needs of residents. Second, security measures should be strengthened. According to the data collected, 89 percent of respondents said they were worried that their electric cars would be stolen when parked downstairs. This requires not only the installation of cameras near the charging piles, but also more security patrols to reduce the occurrence of theft. Conditional community still can also install access guard in the shed entrance, residents swipe card in and out, also can reduce the occurrence of theft.

#### 4.2 Reduce Charging Costs

In order to attract residents to charge downstairs,

the charging downstairs can be cheaper. First, the government will subsidize the price of electricity, and part of the charging costs are borne by the government, so that residents can enjoy lower electricity prices than upstairs, so that residents are more willing to charge downstairs. Second, to use solar power generation. Conditional communities can build solar power units, generate electricity to charge electric bikes, and excess points can be used in public facilities such as community lighting. This is also conducive to implementing the green principles advocated by the civil Code.

#### 4.3 Strengthen Publicity

Of the data collected, 43% of the residents said that the community had not been promoted and educated. So it is necessary to carry out publicity and education in the community. First, relevant signs should be posted in obvious locations in residential buildings to prohibit electric bicycles from going upstairs. Second, to carry out community publicity activities, through the distribution of leaflets, on-site publicity and other ways to publicize the safety risks brought by electric bicycles upstairs, improve the safety awareness of residents. Third, make full use of network media, publicize safety knowledge in residents' WeChat groups or short video platforms, and adopt a popular way to get close to people's life.

#### 4.4 Strengthen Supervision

After improving the above measures, the relevant departments should strengthen supervision, conduct regular inspections in the community, and timely notify the parties concerned to correct them if they find any violations. If they refuse to correct them, they may circulate a notice of criticism. The circumstances are bad and those who repeat repeatedly may be fined.

### 5. Epilogue

Parking electric bikes in the building will bring great safety risks and damage the interests of other owners, so it is necessary to regulate the phenomenon of electric bikes going upstairs. In addition to improving relevant supporting facilities, we should strengthen publicity and supervision, and then lower electricity prices to attract residents to charge downstairs. Through these measures to reduce the fire caused by electric bikes, ensure people's livelihood and maintain social stability.

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