

Research on the Influencing Factors of Residents' Energy Consumption and Carbon Emission in Different Types of Communities--Taking Caijia New Town of Chongqing as an Example

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Abstract : In order to explore the influencing factors of residents' energy consumption and carbon emissions in different types of communities, this paper conducted research on residents' household energy consumption and carbon emissions in different types of communities in Caijia New Town, Chongqing. By calculating the carbon emissions of residents' household energy consumption, we analyze the structure and characteristics of the energy consumption of households in each type of community. At the same time, the key influencing factors affecting the carbon emissions of residents' energy consumption in Caijia New Town are analyzed from both social and spatial perspectives. The results of the study show that: (1) different types of neighborhoods have a clustering and locking effect on different types of resident groups, which makes the distribution of household energy consumption and carbon emissions closely related to the characteristics of the residents; (2) social and spatial factors have an impact on the residents' energy consumption and carbon emissions, and there is a significant difference in the carbon emission levels of different types of neighborhoods. Accordingly, an identification method is proposed to recognize the carbon emissions of Caijia New Town and even Chongqing City, which provides technical reference for the sustainable planning of low-carbon communities.

Keywords : community type, residential energy consumption and carbon emissions, residential differentiation, influencing factors, low-carbon community

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