

# Analysis on the Predicament and Countermeasure of Low - carbon City Construction Based on Residents' Needs

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**Abstract.** With the further development of Chinese economic development and urbanization, in order to better solve the current problems of urban development in China, low-carbon city construction is a better development direction and ideas. Based on the fundamental needs of urban development, this paper analyzes the current difficulties and problems in the development of low - carbon cities in China, and puts forward the corresponding countermeasures, so as to provide ideas for the construction of low - carbon cities in China.

## Introduction

Since the reform and opening up, Chinese economy has made great achievements, but because of the extensive economic growth model, environmental pollution is also increasing with the development of society, in the global warming and the growing shortage of resources in the background, green, sustainable development more and more attention and promotion, green energy development, low-carbon city construction is also extremely important and urgent. In order to better realize the sustainable development of economic construction and environmental protection, our government put forward the concept of low-carbon city construction to alleviate the contradiction between urban construction, economic development demand and low-carbon environmental protection in order to form a sustainable development of the social model, and actively respond to the current severe climate protection situation.

## Low-Carbon City

Low-carbon city refers to the low-carbon economy for the development model and direction, the public to low-carbon life for the concept and behavior characteristics, government management to low-carbon society for the construction of specimens and blueprint of the city. In the 2009 China Strategic Plan for Sustainable Development, it is pointed out that low-carbon cities are developing low-carbon economy with urban space as the carrier, implementing green transportation and construction, changing the concept of consumption and innovating low-carbon technologies so as to achieve the maximum to reduce greenhouse gas emissions. In the context of increasing resources and increasing pressure on environmental protection, the world actively respond to the idea of promoting the construction of low-carbon cities and proud of it, in the process of economic development more attention to environmental protection, in order to achieve the harmonious development of man and nature

Low-carbon city is through the transformation of economic development model, the concept of public life and consumption patterns and other ways to promote and achieve, to ensure that people's quality of life is guaranteed and improved under the premise of achieving carbon emissions reduction of urban construction and development path and model. Its construction includes several aspects of the main content: low-carbon urban construction and development of protection is the development and utilization of low-carbon energy, the key link is the city clean production, effective way is energy recycling, sustainable development is the fundamental direction and objectives and the ultimate foothold lies in the extensive support and participation of the masses. This content is the starting point and the foothold of the construction of low-carbon city, but also the guiding basis and important direction of the development of low-carbon city. Through the analysis

of these contents, we can get the dilemma of low-carbon city construction in our country, But also to solve and out of these dilemmas to provide a specific approach.

### **Low-Carbon City Construction Dilemma**

Low-carbon city construction and development concept of the rise of time is not long, the relevant concepts, theory is not mature, but in its development issues, has been unanimously approved: must adhere to low-carbon city construction. At present, Chinese low-carbon city construction is faced with many difficulties, from the perspective of residents demand, mainly concentrated in the daily food, clothing, housing, transportation, and other related aspects, specifically, the following difficulties.

At present, Chinese energy use structure is unreasonable, coal as the representative of the high emissions, high pollution, high energy consumption, the proportion of energy use is still at a high level, coal resources in the residents heating, cooking and other life use also take a certain Proportion, especially in the north of the winter heating, often exacerbated our haze. On the other hand, Chinese energy efficiency is still low, energy equipment overcapacity, backward technology, reflecting Chinese energy productivity is still at a low level, which further exacerbated Chinese energy and environmental pollution, to the socio-economic A great waste, but also to the environmental pollution control has brought trouble. Finally, Chinese social energy-saving system is not perfect, enterprise production and urban energy composition is not clear, leading to energy estimates are not accurate, resulting in planning unscientific, reasonable energy efficiency caused by inefficient, poor governance and other issues, Chinese low-carbon environmental protection development blocked, greatly affected the planning and construction of low-carbon city.

Land resources is the current problem of urban development in China, due to the interests and historical legacy and other issues, resulting in the use of land planning there are still large problems in low-carbon city construction, mainly in the following two points formed Dilemma. First, land resources planning is too single, concentrated in the plant and living buildings, the land cement hardening is too high, the relevant green plant planning area is too small, and ultimately lead to green vegetation and plants are extremely limited, making the city carbon emissions of plants change Less, and ultimately affect the urban environment, making the construction of low-carbon city lack of natural conditions of support. Second, the land resource planning is unreasonable, functional division is not scientific, the urban environment by the local terrain, wind direction, location and other aspects of the impact of early urban planning without attention and attention to this point, leading to urban pollution can not be efficient through natural purification, and then Exacerbate urban pollution, the construction of low-carbon city has formed a certain degree of trouble and constraints.

Transportation and building energy consumption is the main body of modern urban energy consumption, the relevant statistics show that the two have more than half of the total energy consumption. With the development of Chinese economy, people's living standards have been significantly improved, travel mode is also slowly changing, from the traditional bike to the home car travel, making the city's car ownership increased year by year, which in the Objectively increased the car's energy consumption. On the other hand, due to the unscientific and unreasonable urban road planning, the phenomenon of urban congestion has been deteriorating with the increase of vehicles. Although the cities have taken relevant measures such as restriction, ban, bypass and so on, Cure, the effect is limited. These two aspects have exacerbated the increase in urban vehicle exhaust emissions, which led to excessive carbon emissions, the formation of automobile exhaust pollution, noise pollution, resulting in environmental, transportation and other related issues, and ultimately affect the urban ecological environment and air quality.

With the improvement of living standards, residents of the way of life is also gradually changing, in addition to travel, in daily life, consumption and other areas have changed dramatically. First of all, gas, natural gas, all kinds of electrical appliances have been in the lives of the majority of residents, the use and popularity of these tools to increase the demand for energy consumption, but also makes a variety of emissions gradually increased; Secondly, with the city land resources

Depletion and urban population continues to increase, making the city's physical volume in the gradual increase, but also makes the contradiction between the two gradually intensified, resulting in urban resources, tension, resulting in traffic congestion, housing tension and other unfavorable situation Finally, in the people's living standards have been improved at the same time, some bad spending habits are slowly spreading, large displacement of the car, high consumption of energy, so that the residents of the living standard has been affected, and thus lead to deterioration of the physical quality of residents; Energy equipment, such as luxury jewelry not only formed a bad consumption habits, more important is easy to lead to resources, energy waste, making the original tension more tense resources.

All the difficulties in fact also further confirmed the current low-carbon city construction urgency and necessity, and only low-carbon city construction, can really out of this dilemma, making the city's development more harmonious, ecological and sustainable.

### **Low - Carbon City Development Countermeasures**

The construction and development of low-carbon cities have been studied and discussed. On the basis of actively summarizing the previous experience, combined with the current situation of urban development and the current energy and technological capability, the development and construction of low-carbon cities can be carried out from the following aspects.

Adjust the use of energy structure, vigorously develop and promote low-carbon energy use. At present, Chinese urban infrastructure has a considerable capacity and technology, can independently develop and use new energy, these energy is more environmentally friendly, low-carbon, the use of high efficiency, with great promotion and use value, but because of the residents The concept of curing, making the promotion of the relevant there is still a greater resistance, therefore, in the construction of low-carbon city, the government should actively guide and promote. On the one hand, through the construction of energy transmission infrastructure, so that the use of new energy more convenient, safe and reliable, reduce the promotion of resistance, on the other hand, vigorously promote the use of new energy advantages, so that the majority of residents to accept new energy, and willing to use new energy , If necessary, through the production of new energy, consumer subsidies, is the majority of residents more active use of new energy, out of the old energy use.

Achieve the city clean production, resolutely transform or eliminate high pollution, high energy consumption enterprises. Urban production is an important part of urban development, in the implementation of cleaner production in urban production, to build a low-carbon city has an extremely important role. Clean production focus needs to carry out two aspects of the content, on the one hand is to carry out industrial restructuring and upgrading of high-polluting, high energy-consuming enterprises to upgrade or directly out of technology, improve energy efficiency, reduce pollution emissions, and then achieve industrial structure The promotion of economic development and environmental protection of the harmonious and sustainable development; the other hand, active and proactive monitoring of urban cleaner production situation, for the production of high energy-consuming enterprises, resolutely handle, if necessary, shut down To solve, so that the real implementation of cleaner production, and thus promote the construction and development of low-carbon city.

Encourage technological innovation and development, to achieve energy recycling. The efficient use of energy is the key to energy conservation and emission reduction, and one of the ways to improve energy efficiency is to achieve energy recycling. The recycling of energy has certain requirements on the production process and equipment transformation of the enterprise and the lack of technical ability has a great influence on the energy recycling effect. Therefore, when promoting the energy recycling, we must actively innovate the relevant technology, Technical capacity of innovation and development, in order to better achieve the energy recycling. Of course, from another point of view, increase the green vegetation and plants, to better achieve the urban environment cycle, to some extent also achieved the development of energy emissions cycle.

Establish a strategic goal of sustainable development, and actively promote low-carbon city

construction. The construction and promotion of low-carbon cities need the strong implementation of the relevant government departments, in the era of GDP as the core of economic development, all urban construction around the realization of GDP and carried out, making Chinese economic development has paid a more heavy environmental costs. Change the government's thinking, establish a sustainable development strategy objectives, in the urban planning, infrastructure construction, urban functional zoning, industrial development planning and other aspects of strategic objectives to implement and decomposition, and effectively change the mode of economic growth, scientific and rational planning of urban low Carbon construction. Formulate relevant standards and administrative regulations, and effectively guarantee the implementation, implementation and management of low-carbon city construction, guide and standardize the daily production and living behavior of relevant enterprises, communities and residents, and provide good system guarantee for low-carbon city construction. Encourage relevant research institutions, experts and scholars to explore low-carbon cities and research for the development of low-carbon city offer advice and suggestions to promote low-carbon cities continue to move forward. In short, through the establishment of a standardized low-carbon city construction system, establish a sustainable development direction and objectives, and truly promote the development of low-carbon city construction.

Low-carbon city construction is inseparable from the participation of the majority of residents, and its own low-carbon city construction is to better improve people's living standards, the fundamental purpose is to consume, therefore, low-carbon city construction needs of the residents of the way of life science, Effective integration into which, only from the residents point of view, in order to really get the support and support of the residents. To promote green low-carbon lifestyle, so that the concept of deep into the majority of residents, so that the residents of the way of life more healthy, scientific and better adapt to low-carbon city construction. By controlling the size of the residential area and the residential area, it is beneficial to the layout of the multi-functional land use structure, improve the efficiency of land use, alleviate the contradiction between the current shortage of land resources and provide a good and comfortable living environment for the residents. Vigorously promote public transport, to promote green travel, to encourage green energy vehicle consumption, reduce vehicle emissions reduce urban environmental pollution.

The construction and development of low-carbon cities need the positive promotion and scientific planning of the government. Under the broad participation and cooperation of the production enterprises and residents, the sustainable development as the common goal of the parties can really promote the construction and development of low-carbon cities.

## **Conclusion**

Under the pressure of Chinese resource shortage, economic development and people's living demand, the balance of environmental protection and economic development and the problem of sustainable development are becoming tense and through the construction of low-carbon city, can effectively link this pressure and contradiction, thus The real realization of harmony between man and nature, unified development. Therefore, the implementation of low-carbon development concept, establish sustainable development goals, the relevant ideas and ideas into economic development and urban construction, to reduce urban pollution, to achieve the transformation of urban economic development is of great significance.

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