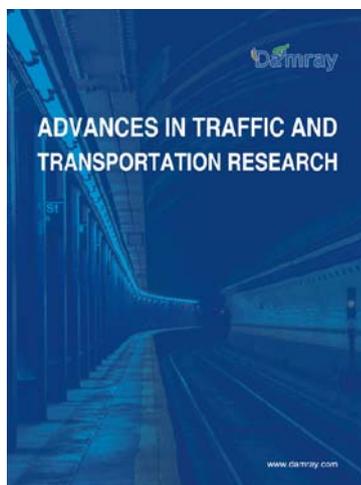


Research on Public Transportation Management Based on the Background of Low Carbon Economy



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Abstract

At present, as China attaches importance to the construction of ecological civilization, the task of protecting ecological environment is also very arduous. Under this new development environment, the development of low-carbon economy adapts to the needs of the times. As people's awareness of green, energy-saving and low-carbon industrial development is gradually increasing, new development models are being explored in various industries. As an important part of the transportation industry, public transportation still has some problems in the process of implementing and enforcing a low-carbon economy. Therefore, this paper mainly researches on the management of public transportation based on the background of low-carbon economy, puts forward the problems existing in the management of public transportation under the current situation, and takes effective measures to solve them, hoping to accelerate the construction of ecological civilization in China and promote the development of low-carbon economy in China.

Keywords

Low-Carbon Economy, Public Transport Management, Research

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1. Introduction

Low carbon economy is the main trend of the current social development, and is also the topic of in-depth discussion in various industries. Accelerating the adjustment of industrial structure and continuously optimizing the production technology level of industry can achieve the development goal of low carbon economy faster. Achieving low carbon in the field of public transportation can not only alleviate the current pressure on the ecological environment, but also rationalize the allocation of resources, which can better implement the policy of energy conservation and emission reduction. Public transportation occupies an important position in energy saving and ecological environment protection. Therefore, in the process of promoting the construction of public transportation, it is necessary to actively change the existing development mode and improve the management level of public transportation in accordance with the new

requirements of low-carbon economic development.

2. Overview

2.1. The basic meaning of low carbon economy

Low-carbon economy mainly refers to the economic development mode under the guidance of the concept of sustainable development, through technical means, institutional construction, industrial transformation and upgrading, as well as the development and utilization of new energy to reduce the pollution of the ecological environment caused by the consumption of traditional energy sources such as coal and oil, and achieve the goal of reducing greenhouse gas emissions, so that the development of social economy and the protection of ecological environment can achieve a win-win situation. Low carbon economy has the characteristics of low energy consumption, low pollution, high utilization rate and low emission. In the practice and application of low carbon economy theory, based on low pollution and low energy consumption, the emission of nitric oxide and carbon dioxide is reduced, so that the air environment and ecological environment can be protected and the phenomenon of unreasonable use of energy can be controlled, which is a sustainable economic model and a concrete practice of modern green ecological construction [1].

2.2. The relationship between low-carbon economy and the field of transportation

The construction and development of transportation infrastructure has made it more convenient for people to travel, which has also promoted the increase in the number of cars. During the increase of motor vehicles, a large amount of energy is consumed and a large amount of emissions are produced. Fifty percent of lead emissions are related to transportation, transportation directly generates 50 percent of nitrogen oxide emissions, and transportation vehicles have a 25 percent growth rate in carbon emissions. Because of this, the public transportation sector has become a difficult point of attack for the low-carbon economy. There is a close relationship between public transportation and the development of low-carbon economy, mainly because the awareness of low-carbon economy by relevant personnel directly determines the implementation and enforcement of low-carbon economy policies, and the management measures of public transportation also affect the development of low-carbon economy defense. In the context of low-carbon economy, the development of transportation industry should be diversified, so as to promote the fast and good development of low-carbon economy.

3. Current problems of public transportation management in a low-carbon economy

3.1. Public transportation planning needs to be strengthened

At present, the public transportation planning in many cities is not scientific, and there is a large arbitrariness in the planning process, which neither takes into account the basic needs of the citizens nor the reasonableness of the arrangement of public transportation stations. It does not respect the travel rules of the public and cannot meet the travel needs of the public, which not only causes the waste of resources, but also makes the public to choose more convenient travel by car, which increases the emission of car exhaust [2].

3.2. Public transportation information system is not perfect

The public transportation system of the city brings greater convenience to people's daily life. However, with the development of the times and the progress of science and technology, intelligence and information technology have been gradually popularized in various fields, making the modern public transportation management system gradually develop in the direction of intelligent transportation network management. However, in the actual application process, urban transport takes information technology and intelligent management equipment, and due to limited funds, it is not timely and comprehensive in updating intelligent equipment, making it difficult for public transportation management to carry out all-round management. Under the influence of such factors, it is difficult to ensure the effective implementation of measures, and will also cause the phenomenon of public transport delays. The increase in the number of private cars will lead to more serious interference in the operation of the public transport system, so that the development of low-carbon economy is not better implemented.

3.3. The traffic regulations are not perfect, the policy implementation is not in place

The deeper reason for the chaotic operation of public transportation order may be the lack of perfect traffic regulations. In China, the development of public transportation field started late, and the system construction or regulation construction in management needs a long process of improvement, and the coordination of public transportation laws

and regulations and industry policies are not fully guaranteed. In the environment of social development, sound laws and regulations can provide sufficient protection for public transportation management. If the laws and regulations are not sound, the response is not timely, the lack of corresponding supervision and management, the prevention of problems is not in place, the feedback is not timely, and the problem solving is not smooth, it will hinder the development of public transportation in the context of low carbon economy.

4. Optimization strategies of public transportation management in the context of low-carbon economy

4.1. Systematic planning of transportation routes

Systematic planning of transportation routes can improve the scientific nature of transportation development. It is possible to extend the stations of subways, trains and buses to the airport, which can provide greater convenience for citizens' travel and reduce the use of cars and cabs, and can reduce the consumption of energy caused by vehicle interchanges. In the current planned transportation network, the main purpose is to coordinate the modes of transportation, to ensure the coordination and smooth flow of public transportation, and to bring into play the continuity and effectiveness of public transportation. The coordination and communication between various municipal departments should be strengthened, and field research should be conducted to set up scientific transportation routes and stations to cover the newly added residential areas. Strengthening the road greening project can effectively reduce the fatigue of car drivers and reduce the occurrence of road safety accidents. In the environment of low carbon economy, we should vigorously develop the metro and bus transportation in the city. The municipal construction department should increase the investment in the construction of urban metro, scientifically plan the lines of metro and bus, implement the construction of urban metro rail transportation, improve the efficiency of public travel, and bring convenience to the public's travel. In the city's highway to reasonably plan the special channel for public transport, set up special stopping points, can effectively reduce traffic congestion, to ensure the efficiency of travel. In order to effectively implement the low-carbon development policy in the field of public transportation, it is also necessary to strengthen the publicity of low-carbon environmental protection concept and set up display slogans to create a green travel environment [3].

4.2. Construction of information management system

In order to ensure the smoothness of public transportation management, it is necessary to build an information management system. Information is the main resource condition of public transportation, and the efficiency of public transportation can be further improved by obtaining effective information at the stage of setting and planning of routes. By managing the information of public transportation vehicles, it is possible to achieve better control of vehicles, improve the efficiency of public transportation, and avoid risks and controls in the operation phase. Information management system can also achieve reasonable control of road information, to ensure the normal passage of road vehicles, timely management of vehicle information, timely dredging of traffic congestion on the road, adjust the traffic conditions of the surrounding roads, to alleviate road congestion. During the transportation management in different areas, the policy conditions applied will be different. The relevant policies are formulated according to the actual local conditions, and transportation is implemented according to the relevant policies. Public transportation should be reasonably controlled during the implementation of control policies. Information management systems guarantee the efficiency of information sharing and improve the flow of information. The influence of key factors in the process of transportation can be determined. Government departments should strengthen the construction of public transportation information platform, do a good job of technical support to ensure the effective operation of public transportation, and make due contribution to the development of low-carbon economy.

4.3. Improve laws and regulations and enhance service level

The development of the public transportation industry in the low-carbon economy needs to be supported by perfect laws, so that there can be laws to follow and laws to follow. And also can play a certain role in supervision and control. After combining the actual situation of the relevant transportation, the corresponding laws and regulations should be formulated for implementation, and the system of the industry should be improved and standardized to a certain extent, and the management of public transportation should be guaranteed by laws and regulations. The government needs to publicize the current public transportation and urge the relevant departments to supervise the public transportation to achieve the purpose of up and down cooperation. In the process of propaganda, the concept of environmental protection, low-carbon and green should be strengthened to enhance the people's awareness of low-carbon and environmental protection. Enhance the reasonable allocation of resources by various departments to ensure that the public transportation industry can develop in an orderly and green way and enhance the green travel efficiency of the people [4].

4.4. Play a regulatory role of government departments

Public transportation management in the context of low-carbon economy requires the government to play a regulatory role to coordinate and manage the relevant work among various departments to ensure the construction of public transportation environment. At the same time, the government should also formulate corresponding control measures to ensure the effective implementation of the concept of low-carbon economy in the field of public transportation. In the process of urban planning and management, coordinate the relationship between transportation management departments and power supply departments to avoid the lack of timely communication between the various departments to affect the normal operation of public transportation work. The government and relevant departments should strengthen financial investment to eliminate fuel buses and cabs and actively introduce new energy buses and cabs. To improve the smoothness and safety of road transportation and achieve the development goal of energy saving and emission reduction. This can make a significant contribution to the improvement of ecological environment.

4.5. Improving public transportation service level

Cloud computing, big data and other technologies are applied in the field of public transportation, which can improve the level of public transportation services. Not only does it speed up the time people spend on public transportation, but also improves the quality of public transportation work. With the support of Internet technology, public transportation is developing toward more intelligent transportation management. With the support of new technologies, a one-stop travel service system for passengers has been established, which improves the reliability of public transportation, enhances the efficiency of the connection between different modes of transportation, and reduces the transfer time of passengers. With the continuous improvement of public transportation infrastructure in the city, it provides the basic guarantee for the construction of ecological civilization and the development of low-carbon economy.

4.6. Raising awareness of low-carbon economy and promoting new energy vehicles

Under the influence of the concept of low-carbon economy, in order to realize the sustainable development of the city, it is necessary to strengthen the publicity work of low-carbon economy, enhance the public's awareness of low-carbon economy, and implement the concept of ecological and environmental protection into the actual daily life. It is also necessary to promote new energy vehicles. The widespread use of new energy vehicles can make a great contribution to the realization of low-carbon economy construction. Therefore, the government should join hands with several departments to speed up the construction of supporting facilities for new energy vehicles, and establish centralized charging and switching stations and logistics distribution centers in cities. And in the management of public transportation, lay a solid foundation for the development of a new public transportation industry. Through the promotion of new energy vehicles, we can promote the development of new urban public transportation industry, accelerate the disposal of energy-intensive vehicles, and promote the development of low-carbon economy.

5. Conclusion

To sum up, in the context of low carbon economy, the development of public transportation business has gained new opportunities. The current attention to the low-carbon development of public transportation management is very high. In the analysis of the development environment, image and public transportation level of the city. The construction path based on low-carbon economy transforms the thinking of urban development. In this process, the government needs to introduce a number of policies and laws and regulations, improve the relevant policies under the development of low-carbon economy, and strengthen the management of public transportation. Only by solving problems from a long-term perspective can the development of a low-carbon economy be put into practice.

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