# *Research on Government Function Allocation and Role Positioning in Low-carbon Construction*

## *--A Case Study of Baoding, Hebei*

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***Abstract*—Low-carbon construction has become a major theme in government management innovation, and Baoding's experience has great demonstrative value for low-carbon construction in China. In the discourse framework of the social governance system, the idea of building a "guidance-oriented government mode" is presented in this research. This mode can more effectively explain and respond the reality in low-carbon construction, which is composed of "strategic guidance", "management guidance", "policy guidance", and "governance guidance". To build a "guidance-oriented government", it is essential to fix and position the role. The government should be a designer portraying the blueprint for low-carbon construction, a supplier providing low-carbon tools and setting up evaluation standards, and a foregoer promoting low-carbon technology development.**

***Keywords: Function Allocation; Role Positioning; Low-carbon; Low-carbon Construction***

### I. INTRODUCTION

In recent years, low-carbon economic construction and low-carbon social development have gradually become a research hotspot in the public management field and a major theme in government management innovation. As a sustained development model featured by low energy consumption, low emission and low pollution, low-carbon development has led to an inevitable transformation of government management styles and policy orientation. As a result, the traditional government function allocation will experience a significant change. According to Fang Shirong and Sun Caihua(2011), it is quite necessary to set a new value of pursuing "ecological security" and establish a new low-carbon administrative philosophy[1]. On this basis, scholars have conducted research to re-position roles of governments. For example, Li Bin (2010) believed that governments should play 4 roles in low-carbon development, that is, the development strategy maker, guider and supervisor as well as the demonstrator of the low-carbon lifestyle[2]. Zhao Yuan (2011) found that in the process of developing low-carbon economy in China, governments should assume 3 roles, including the maker of basic systems and rules, the propagator and guider of the low-carbon economic concept, social coordinator and supervisor[3]. In addition, some scholars have made in-depth analyses of practices of local governments. For example, Zhang Wenguang and Ma Zhentao (2014) conducted a case study of Zhuhai, to explore system innovation of local governments in low-carbon construction [4].

Baoding is one of two low-carbon pilot Chinese cities chosen by the World Wild life Fund, and the only prefecture-level city among the first 8 low-carbon pilot cities chosen by the State Development and Reform Commission. Summarizing and teasing apart the experience of Baoding in low-carbon construction has great significance for guiding and

[1] Fang Shirong & Sun Caihua. On Government Functions and Administrative Behaviors in Low-carbon Social Construction [J]. Legal Science, 2011, (6): 56-65. (In Chinese)

[2] Li Bin. On Government Role Positioning in Low-carbon Economic Development [J]. Journal of Liaoning Administration College, 2010, 12(12):5-6. (In Chinese)

[3] Zhao Yuan. Analysis of Government Role in Low-carbon Economic Development in China [J]. Chinese Public Administration , 2011, (8): 96-99. (In Chinese)

[4] Zhang Wenguang & Ma Zhentao. The Local Government Role and Behavior of Innovation in Low-carbon City Pilot: A Case Study of Zhuhai [J] Chinese Administration, 2014, (4): 28-31. (In Chinese)

enlightening China in low-carbon development and local governments to make good role positioning.

## II. "GUIDANCE-ORIENTED" FUNCTIONAL MODE IN LOW-CARBON CONSTRUCTION

Modern government management theories abandon the idea and method to see governments as the only subject that can address public issues, and emphasize the triangular relationship among governments, enterprises and citizens. As the social governance model has changed from management-oriented administration to service-oriented administration, it has become a historical trend for governments to change from management-oriented governments to service-oriented governments. To achieve the strategic goal of developing low-carbon economy, it is quite necessary to properly adjust and change government functions.

### *A. Strategic Guidance in Low-carbon Construction*

In low-carbon economy, the leading and guiding role of governments will become more obvious, and the strategic position of governments will be more highlighted. The main reason is that in the context of global warming, governments are almost impossible to reduce carbon emission and achieve low-carbon economy, if no effort is made, but must make a strong push on laws, regulations, policy environment, technological development and other aspects. It is also unrealistic to just wait for the independent and spontaneous low-carbon construction of economic organizations and high-carbon consumer groups, because governments are the only one that has an overall macro-vision, an ability of strategic regulation and powerful public resources. To smoothly implement low-carbon construction, governments should build a complete institutional system, including a target system, action plans, implementation mechanism, relevant laws and policies, and standard systems. Government institutional framework and policy measures should be built, to promote the development and use of energy-efficient technology, energy-saving and emission-reducing technology and renewable energy technology. Therefore, in the process of low-carbon economic development, governments play an extremely important strategic role.

### *B. Management Guidance in Low-carbon Construction*

It is quite necessary to make reform of the economic management system, to develop low-carbon economy. The economic management system is a method for economic management departments to launch economic management, as well as a great guarantee to ensure that economy can develop orderly towards the expected direction. To promote low-carbon economic development, it is essential to follow the idea of low-carbon development in production, distribution, consumption and other links, lower consumption and pollution in the resource and energy consumption, pollutant emission and other fields, and update management ideas and methods to meet requirements for low-carbon development. Further standardization and integration of management modes can help to effectively reduce randomness and blindness in management and lower management costs, thus further improving the performance of low-carbon development.

### *C. Policy Guidance in Low-carbon Construction*

To realize low-carbon construction, it is quite necessary to achieve "low carbon", "carbon reduction" and even "carbon-free". That is to say, governments should optimize their decision-making process, use the low-carbon economic development idea in decision-making and encourage to achieve the goal of low-carbon economy. By means of determining development plans, improving laws and regulations, changing relevant systems and mechanisms, promoting technological innovation and other measures, environmental issues represented by climate change have been considered in the overall planning of national macro-development policies, and policy instruments for low-carbon innovation have been updated. The integrated use of carbon budget, carbon taxation, carbon information regulation, carbon sink management, carbon fund management and other new low-carbon policy instruments has constantly strengthened the guiding function of public policies and effectively promoted low-carbon economic development. Only positive bottom-to-top public policy guidance can continuously promote the orderly proceeding of low-carbon economic activities, thereby laying a solid foundation for all-around construction of a low-carbon society.

*D. Governance Guidance in Low-carbon Construction*

Low-carbon construction is a complex systematic project, but not a simple government act or market behavior. Different from the free market economy model and the government centralized management model, low-carbon construction is a development model that governments, enterprises and citizens jointly participate, interact with and affect each other. After years of development and practice, Baoding has shaped its own features in low-carbon urban construction. In terms of the low-carbon development subject, the "trinity" (governments, enterprises and society) multi-center cooperative governance model has been preliminarily developed. However, governments must more fully assume their leading and guiding role in the governance structure. In the production field, governments should develop a stable policy mechanism, to promote a transition to low-carbon consumption. Moreover, governments should take the initiative in their interaction with the market, citizens and other parties, and continue to promote and guide the formation of the low-carbon governance model.

## III. Government Role Positioning in Low-carbon Construction

The core of low-carbon construction is to build low-carbon governments. Low-carbon government is a new government system model which takes low-carbon economy as the development model, the low-carbon life as the idea and low-carbon urban building as a goal, and has long-term incentives. To build a "guidance-oriented" government which can achieve a balance between "environmental protection" and "economic development", it is essential to fix and position the government role.

*A. Decision Coordinator in Low-carbon Development*

The transition to low-carbon economy is a new proportion, so no existing experience is available. Therefore, it is of key importance to establish a good decision-making coordination mechanism. In view of this, Baoding has set up a special team to work on low-carbon urban construction, with the municipal government as the team leader, relevant departments as team members and the office set in the Municipal Development and Reform Commission. To strengthen the strategic guidance for the low-carbon development, it is quite essential to further enhance the strategic position of the working team of low-carbon construction, make an overall arrangement for functions of departments of environmental protection, development and reform, finance and taxation, technology, land and resources, housing and urban construction and transportation, integrate various resources, and build a powerful integrated management agency of decision-making coordination and regulatory oversight, which is responsible for coordinating and developing low-carbon economic development strategies, guidelines and policies and addressing major issues in low-carbon development.

*B. Strategic Planner in Low-carbon Development*

In low-carbon development, planning should go ahead of others. The Baoding government should develop strategies of low-carbon economic development, on the basis of considering the natural ecological environment and regional load capacity and taking low-carbon construction as a new economic growth point. Moreover, the government should determine its mid-long-term development goals and properly distribute emission-reducing tasks, according to actual situations of different regions. As a city bordering the capital Beijing and a satellite city in the capital city agglomeration system, Baoding should not only match capital satellite cities in the Beijing-Tianjin-Hebei region, but also give full consideration to the bearing ability of its regional ecological environment to the city size. In this way, work should be done to guide rational distribution of population, so that Baoding can develop into a compact and ecological low-carbon city with gathered production elements, industry and population.

*C. Policy Provider in Low-carbon Development*

Low-carbon construction requires great guarantee from the "trinity" policy system. In terms of pricing policies, the Baoding government should deepen the reform of the resource product price. In terms of finance and taxation policies, the government should improve the government procurement policy of energy-saving products, and promote the constant improvement of the government procurement system of energy-saving and eco-friendly services. In terms of financial policies, the government should promote the innovation of financial products and services, build a linkage mechanism between the corporate energy-saving and

environment-protecting level and the corporate credit rating and loan application. The government should create normative policy tools to control behaviors of economic participants. Meanwhile the government should also develop incentive policies to guide market behaviors to support low-carbon economic construction.

*D. Monitoring Evaluator in Low-carbon Development*

Evaluation is an important baton which has great guiding functions. In this context, in low-carbon green planning and other programmatic documents, various regions have proposed the goal of building evaluation systems. To incorporate low-carbon development into the evaluation mechanism, the government should put energy consumption, carbon emission and indexes into the cadre evaluation system, further improve the energy-saving and emission-cutting statistics, monitoring and evaluation systems, and build and improve the energy-saving and emission-cutting job evaluation system, on the basis of giving a comprehensive consideration to the economic development level, industrial structure, energy-saving potential, environmental capacity, industrial layout and other factors. Meanwhile, the Baoding government should also strengthen management of target responsibilities, impose strict supervision on evaluation, take evaluation results as an important content to judge leaders and cadres.

*E. Technological Promoter in Low-carbon Development*

Development of low-carbon technology is a great driving force for low-carbon construction. The government and relevant industry authorities can set up special funds for municipal and district-level energy-saving and emission-cutting technological innovation. Meanwhile, they can build research teams to strengthen the low-carbon development generic and key technology. Moreover, they should encourage enterprises to make breakthroughs in low-carbon technology, and improve the initiative of enterprises to use new technology. Making use of personnel and technological advantages formed by the North China Electric Power University, Hebei University, Hebei Agriculture University and other institutions for higher learning and related research institutions, the Baoding government has built a low-carbon technology research and development center, low-carbon technology laboratory, and an industry-university-research system for low-carbon technology innovation and achievement transfer, which provide technical support for low-carbon development.

*F. Idea Promoter in Low-carbon Development*

In low-carbon education, it is the main responsibility for governments as the main body to strengthen publicity and education and build an awareness of low-carbon economic development. The government should carry out extensive propaganda of the low-carbon idea among the masses, improve the public's understanding of energy and climate change issues, guide the public to realize the effect of green and low-carbon consumption on environmental improvement, vigorously publicize the low-carbon consumption idea in the whole society, and guide the formation of low-carbon consumption fashion in society. Meanwhile, it is quite essential to strengthen demonstration and guidance in low-carbon development, build a propagandizing mechanism combining governments, media and enterprises with the masses, and advocate production and life styles benefiting low-carbon economic development. A variety of advertising media should be used to publicize new consumption patterns, raise the public awareness of environmental protection, and guide the masses to consciously save fuel, energy and water and reduce carbon emission.

## IV. CONCLUSIONS

At present, Baoding is at a critical period of entering the middle and advance stage of low-carbon development from the primary stage. It is quite urgent for the Baoding government to achieve coordination between low-carbon development and the government functions in economic regulation, market supervision, social management and public service, and develop a function allocation model in line with regional characteristics.

Compared with the "dominance-oriented government model", the "guidance-oriented government model" can more effectively explain and respond the reality in low-carbon construction. Along with a change from management-oriented administration to service-oriented administration, the government will inevitably develop to be guidance-oriented from the original control-oriented. This will be a positive

attempt of Baoding to explore low-carbon development of inland cities.

The government should be a designer portraying the blueprint for low-carbon social construction and developing the low-carbon development path, a supplier which provides supporting low-carbon tools and sets up evaluation standards, and a foregoer promoting low-carbon technology development. Only when the Baoding government properly positions and plays its role in low-carbon construction, can Baoding truly get on a green road of rise which not only fits the actual situation of urban low-carbon development, but also has its own characteristics.

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