

Research on the Countermeasures of Accelerating the Development of Low - carbon Economy in Henan Province

Na Wang^{1,*}

¹ Department of economics and management, Henan Polytechnic Institute, Nanyang, Henan, China 473009

*E-mail: wangna_1122@126.com

Abstract: Low carbon economy as a new economic model, has aroused wide attention of academia and the government. In recent years, the central provinces have explored the path of low-carbon economic development. Henan Province in order to make a new pattern of economic development in the central must also accelerate the development of low-carbon economy. To Henan Province, the development of low-carbon economy is facing opportunities and challenges as the starting point, Henan Province, the development of low-carbon economy path selection. Including the development of low-carbon economic development awareness, the establishment of low-carbon economic structure, the establishment of low-carbon technology innovation system, good low-carbon economic development plan, advocate low-carbon consumption patterns.

Keywords: Countermeasures; Development; Low - carbon economy; Henan Province

1. INTRODUCTION

Henan Province, rich in energy resources, is the country's energy, an important production of raw materials, but also a large province of energy consumption, but the province's greenhouse gas and pollutant emissions status is not optimistic. Make full use of these resources for the low-carbon economy in Henan Province to make some contribution. At the same time, Henan Province is also actively promoting the development of low - carbon economy. In 2010, the government 's work report of Henan Province Governor Guo Gengmao put forward the "vigorously develop circular economy, green economy and low - carbon economy, and speed up the construction of resource - saving and environment - friendly society. Will strictly implement the "two high" industry out of standards continue to eliminate backward production capacity. Development and implementation of chemical industry, textile, paper and other industries unit energy consumption limit local standards, promote advanced energy-saving technologies and energy-saving equipment. Boost the industrial structure of Henan transformation accelerate the development of low-carbon economy in Henan. In Henan Province, "Twelfth Five-Year Plan" also

proposed: to establish a green, low-carbon development concept to focus on energy-saving emission reduction, speed up the construction of resource-saving, environmentally friendly production methods and consumption patterns, and actively cultivate low- Characteristics of the new economic growth point, to promote harmony between man and nature.

2. THE PRODUCTION OF LOW-CARBON ECONOMY

Since the industrial revolution, with the continuous progress of science and technology, mankind on nature, the transformation of the society is growing, this transformation makes the development of human society experienced a qualitative leap. However, while enjoying the benefits of economic prosperity, but also have to face a series of problems caused by excessive demand, environmental pollution, ecological imbalance, resource depletion, climate disasters and other contradictions are increasingly threatening human sustainable development of. These issues prompted the world to begin to reflect and find the appropriate solution, which, "low-carbon economy" concept was put forward and widely accepted.

"Low-carbon economy" is a new way of development and economic form proposed by mankind to cope with the massive consumption of fossil fuels and large-scale emissions of carbon dioxide caused by global climate. It is based on low energy consumption, low pollution, low emission, low carbon content and high efficiency Economic development model, that is, through low-carbon technology and energy technology innovation and system innovation, optimize the energy structure, save energy, improve energy efficiency, develop low-carbon products, fundamentally change the quality of the economy, production, consumption and survival. Relative to the high-carbon economy, low-carbon economy requires abandon the traditional economic development model, the implementation of high-carbon economy to low-carbon economy transition to low-carbon development for the development of energy-saving emission reduction for the

development of carbon neutral technology for the development of the green economic development model. Under the background of global climate change and energy shortage, low-carbon economy development model based on low energy consumption, low pollution and low emission is being paid attention. Henan is rich in resources and energy, is the country's energy, an important base for raw materials; both the production of large provinces, but also consume a large province. Studying the current situation of Henan energy and constructing the index system of Henan low carbon economy can provide some positive effect for seeking the development of low - carbon economy in Henan space and conditions and the realization of sustainable development opportunities.

3. OPPORTUNITIES AND CHALLENGES FACED BY HENAN PROVINCE IN THE LOW CARBON ECONOMY

(1) The development opportunities

It is conducive to economic development mode change. The development model of low carbon economy and the transformation of economic development mode have the coupling characteristics. Low-carbon economy requires high energy efficiency and clean energy structure, to do this, the core lies in energy technology innovation and institutional innovation. Around the low-carbon economy of energy and industry development and application of new technologies will undoubtedly help Henan Province to change the high consumption, high emissions, low efficiency of economic development, is conducive to ease the economic growth and the sharp contradiction between resources and environment, to achieve economic Social development and ecological environment construction of the "win-win".

It is conducive to the adjustment of industrial structure. Accelerate the adjustment of industrial structure and the development of low-carbon economy is inherent consistency. Low-carbon economy involves a wide range of industries and fields, including low-carbon products, low-carbon technology, low-carbon energy development and utilization. According to international experience, the development of low-carbon economy will promote new industry development, such as renewable energy industry, nuclear power, wind power, energy-saving technology industry and high-tech environmental protection industry. At the same time, it will also promote the development of advanced manufacturing and other high-tech industries with low resource consumption, less environmental pollution, strong innovation ability, high technological content and good economic benefits.

It is conducive to the "two" construction. Low consumption, low emissions, high efficiency is the basic characteristics of low-carbon economy. Henan

should "two low" requirements, reflected in the "two" construction of all aspects.

(2) The severe challenge

First of all, Henan is a large energy consumption, energy production and consumption structure to coal-based. But by resource constraints, coal-based energy production and consumption structure within a short period of time is difficult to change. How to change under the established resources to a low-carbon economy is a test we face.

Second, the underdeveloped areas of Henan Province are in the period of industrialization, urbanization and modernization. The energy demand and carbon dioxide emissions are growing rapidly. The high energy-carrying industries such as coal chemical industry, nonferrous metals and electric power still occupy an important period position. China began to honor the commitment to reduce emissions, resources, energy exploitation will be limited, thus affecting the promotion of GDP. The future, to ensure the rapid economic development, but also to meet the requirements of low-carbon economic development, this task is arduous.

Again, the overall level of technological backwardness, limited technology research and development capabilities. Developed countries and developed regions to vigorously promote low-carbon economy, focus on the development of low-carbon technology for many years, these technologies related to their related businesses and the overall low-carbon economy in the era of core competitiveness cannot be easily transferred.

Finally, intense regional competition is underway. Jiangxi Provincial Government has completed the first provincial "low-carbon economic and social development program" (white paper), Nanchang has become the first development of low-carbon economy pilot cities, is building a world-class solar photovoltaic industry park. Hubei Province, the basis for the development of low-carbon economy and conditions are better, occupy the vast area of Hubei Province, Wuhan city circle, has been widely industrial adjustment, and gradually to the high-end services, high-end manufacturing and high-tech industries, "three high" The direction of the development of industrial structure of low-carbon characteristics obvious.

4. THE COUNTERMEASURES TO ACCELERATE THE DEVELOPMENT OF LOW - CARBON ECONOMY IN HENAN PROVINCE

Low-carbon economy is a low-carbon industry, low-carbon technology, low-carbon energy, low-carbon life, low-carbon management, low-carbon city and other economic conditions for the general term. This requires the development of low-carbon economy in Henan Province, including the choice of path selection, structural innovation, technological innovation, management innovation, mechanism

innovation and consumption model innovation.

(1) Develop low-carbon economy development awareness.

Increase the education and propaganda of climate change, enhance the awareness of the development of low-carbon economy, so that the development of low-carbon economy has gradually become the government, enterprises and people conscious behavior. Play a school, media organizations, governments and other organizations in the low-carbon economy transition education and training in the positive and effective role, so that low-carbon lifestyle penetration of daily life, building low-carbon community and low-carbon business district. Help enterprises to establish low-carbon business philosophy, commitment to corporate social responsibility, low-carbon awareness directly into the enterprise decision-making.

(2) Establish the low-carbon economic structure.

Vigorously support the clean energy, trade logistics, modern tourism, high-end services, high-end manufacturing and environmental protection industries and other low-carbon industries, and strive to develop and produce high value-added, low-energy products, improve high-carbon industry access market threshold. Vigorously develop the circular economy, around the colored, coal and other advantages of resources in Henan Province, focus on cultivating five major recycling industry chain and gradually form a low input, high output, low pollution, high efficiency, able to cycle, sustainable industrial development. Speed up the planning and construction of industrial agglomeration areas, to achieve land, capital, talent, information, equipment and service facilities intensive and efficient use, to achieve the goal of reducing carbon emissions, build low-carbon industrial park. Vigorously develop new energy, renewable energy and clean energy, build a low carbon energy supply system. Strengthen the development of natural gas, and actively develop hydropower, in-depth development of wind energy, solar energy, geothermal energy and biomass energy and other renewable energy, to improve the efficiency of the development of natural gas, Optimize the energy structure.

(3) Establish a sound low-carbon technology innovation system.

Speed up the establishment of enterprises as the main body of the low-carbon technology innovation system, enhance the ability of independent innovation, promote the "production and research" joint, the establishment of provincial low-carbon technology research and development services platform, focus on solving low-carbon areas of the province common and key technology research and development and Research and support new energy and energy efficient technology research and development and transformation of results, to promote a number of large potential, wide application of energy-saving

emission reduction, clean production of low-carbon technology. Integration of the existing low-carbon technology market to quickly promote and apply; rationalize enterprise risk investment and financing system to encourage enterprises to develop low-carbon and other advanced technologies, increase new technology, new materials, new technology development and application; Exchange and cooperation to promote the developed countries, developed areas of Henan Province, the transfer of technology.

(4) Make a good low-carbon economic development plan.

Pay close attention to the formulation and implementation of low carbon economic development strategic planning. As soon as possible with the national policy of supporting low-carbon economic development strategic planning, and the province's "energy planning", "science and technology planning", "circular economy planning" and "energy-saving emission reduction planning" and other convergence, the formation of an operational Low carbon economic development blueprint. Implementation of strategic planning, we must fully consider the constraints of the province's real conditions, step by step, step by step implementation, to avoid a greater impact on economic development. Highlight the major industrial sectors and key enterprises in the development of responsibility, especially for the six large energy-consuming industries, to further develop a phased implementation of the objectives of the major measures to focus on the development of low-carbon economy to solve major problems.

(5) Promote low-carbon system innovation.

To build a long-term stable low-carbon economic industry policy-oriented mechanism to form a new low-carbon industry development mechanism, low-carbon agriculture auxiliary mechanism, low-carbon industrial adjustment mechanism, energy industry optimization mechanism, effective allocation of low-carbon industrial resources, protection of small and low carbon industry growing up. Establish incentives such as financial subsidies, tax incentives, financing preferences and land priority protection to stimulate and guide enterprises to increase investment in low-carbon technology research and development or through the reallocation of R & D funds to promote the development of low-carbon technology. The establishment of multi-party coordination to promote the mechanism, pay attention to play the government, industry associations, enterprises and the public and other subjects of enthusiasm, the formation of low-carbon economy to promote the development of the overall force.

(6) Build low-carbon consumption model.

Building a low - carbon consumption model is the inevitable choice for the development of low - carbon economy. Construction of low - carbon consumption

model should be the overall development of people as the goal. Low-carbon consumption model advocates low consumption of consumption structure, emphasizing the balanced development of material consumption, spiritual consumption and ecological consumption. Without reducing the quality of life of the community under the premise of energy consumption in the consumer sector and reduce carbon dioxide emissions also have great potential. Comprehensively improve the residents to establish a low carbon consumption model of participation, give full play to the government's leading role in low-carbon consumption model, advocacy and practice of low-carbon, scientific and healthy, eco-green consumption patterns, including constant temperature consumption, affordable consumption, Safe consumption, new areas of consumption.

5. CONCLUSION

Henan Province as a large province of population and agricultural province, the annual carbon emissions can be imagined, with the "rise of the central" slogan, Henan Province, economy, science and technology, culture and other aspects of rapid development, but environmental issues with other Provinces and cities have become a problem cannot be ignored. At present, the overall level of environmental quality in Henan Province is low, and there is no shortage of control and governance. Therefore, Henan Province from all sides needs to strengthen the development of low-carbon economy, the real implementation of the national low-carbon economic development requirements.

ACKNOWLEDGEMENTS

Project Fund:

Soft Science Research Program of Henan Province: Research on Low Carbon Economy Development Strategy under New Normal Economy.

Item number: 162400410246

REFERENCES

- [1] Li Xiaoyan, Deng Ling. Urban comprehensive evaluation of low-carbon economy - taking municipality as an example [J]. Modern economy. 2010 (02)
- [2] CAO Jie, YANG Yi-wen, CHEN Sen-fa. Application of Process Management Performance Evaluation of Alliance Enterprise Based on Analytic Hierarchy Process [J]. Computer Integrated Manufacturing System. 2008 (08)
- [3] Fu Yun, Ma Yonghuan, Liu Yijun, Niu Wenyan. Study on the Development Model of Low Carbon Economy [J]. Chinese Journal of Population and Environment. 2008 (03)
- [4] Wang Yonglong. China's low-carbon economic development policy innovation analysis [J]. Economist. 2010 (11)
- [5] Zhang Qisheng. Low-carbon economy and economic development model change - taking Henan Province as an example [J]. Productivity Research. 2010 (10)