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Research on the Path of Developing Green and Low-Carbon Industries in Baoding under the "Dual Carbon" Goal

-- Taking the Construction of "Landscape Baoding" as an Example

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Abstract

Under the background of the deep integration of the “Dual Carbon” goals and the Beijing-Tianjin-Hebei coordinated development strategy, green and low-carbon industries have become the core engine for high-quality regional economic development and a key path for building ecologically livable cities. As a core participant in the functional expansion of the capital and regional coordinated development, and one of the first national climate investment and financing pilot cities, Baoding boasts two national-level advanced manufacturing clusters: intelligent connected new energy vehicles and power and new energy equipment. Its green and low-carbon transformation holds demonstration significance for the ecological and economic synergy of Hebei Province and the Beijing-Tianjin-Hebei region. This paper aims to construct "Landscape Baoding", based on the actual industrial development of Baoding, using field research and empirical analysis methods, combined with SWOT analysis and technology-industry integration innovation analysis, to systematically examine the current status, strengths, weaknesses, and potential threats of Baoding’s green and low-carbon industries. It proposes targeted development strategies from multiple dimensions such as top-level design and industrial collaboration, providing theoretical support and practical paths for building Baoding’s “7+20+N” modern industrial system, while offering a reference for similar cities in their green and low-carbon transformation.

Keywords

Green and Low-carbon Industries; Landscape Baoding; Beijing-Tianjin-Hebei Coordinated Development; New Quality Productivity; Industrial Clusters; Technology-industry Integration.

1. Introduction

The Fourth Plenary Session of the 20th Central Committee of the Communist Party of China explicitly incorporated the promotion of carbon peak and carbon neutrality into the overall layout of modernizing national governance and governance capacity, emphasizing the acceleration of a comprehensive green transformation of economic and social development and the construction of a Beautiful China. The 2026 National Two Sessions government report further proposed accelerating the comprehensive green transformation, enhancing green development momentum, actively and prudently advancing carbon peak and carbon neutrality, implementing quality improvement, cost reduction, and carbon reduction actions in key industries, supporting the innovation and application of green and low-carbon technologies and equipment, and cultivating new growth points in green energy, green transportation, and green buildings.

Baoding is located in the core area of the Beijing-Tianjin-Hebei coordinated development, closely serving the functional positioning of serving the capital, connecting with Beijing and

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Tianjin, and linking with Xiong'an. Over the past decade, it has deeply undertaken the industrial spillover from Beijing and Tianjin, cultivated new quality productivity, and become an important growth pole in the regional economy. As one of the first national climate investment and financing pilot cities and one of the first low-carbon pilot cities in China, Baoding has inherent policy advantages and industrial foundations for green and low-carbon industrial layout. Studying the urban development path of “Landscape Baoding” is not only a concrete practice of implementing the national “Dual Carbon” strategy but also an inevitable choice for promoting the construction of a modern quality life city[11].

2. SWOT Analysis of the Current Situation and Problems of Green Low-Carbon Industry Development in Baoding

This paper combines the 2025 Baoding Government Work Report, 2025 national economic operation data, and field research to systematically analyze the development pattern of green and low-carbon industries in Baoding from four dimensions: strengths, weaknesses, opportunities, and threats.

2.1. Strengths

2.1.1. Outstanding Advantages of Strategic Location and Policy Superposition

Adjacent to Beijing, Tianjin and Xiong'an, Baoding is deeply integrated into the overall situation of Beijing-Tianjin-Hebei coordinated development and is easy to undertake the spillover and transfer of innovative resources and high-end factors. As a national pilot city for climate investment and financing, it takes the lead in exploring new financial tools such as carbon sink pledge loans and green bonds. In 2024, the city completed a total of 467,000 tons and 284,000 tons of energy use right and coal use right transactions respectively, realizing fiscal revenue of 66.642 million yuan. In 2025, the province's first climate-friendly enterprise financing docking platform was built, and the momentum of green development continued to grow. The High-tech Zone was selected into the first batch of national-level zero-carbon park construction list, and 5 development zones including Gaoyang and Xushui were selected into the first batch of Hebei zero-carbon parks, building a national benchmark for zero-carbon transition. It has successfully cultivated 32 provincial-level green factories, 5 provincial-level green supply chains and 1 provincial-level green park. It has creatively built a personal low-carbon account with 89,000 registered users, with a cumulative carbon dioxide emission reduction of 110 tons[11].

2.1.2. Solid Foundation of Two National-level Advanced Manufacturing Clusters

Baoding is the only city in Hebei Province with two national advanced manufacturing clusters: intelligent connected new energy vehicles and electric power & new energy equipment, gathering leading enterprises such as Great Wall Motors and Yingli Group. The advantageous industries have been continuously consolidated and improved, and the manufacturing quality competitiveness index has ranked first in Hebei Province for 11 consecutive years, leaping into the development stage of "strong competitiveness" for the first time. Great Wall Motors sold 1.3237 million new vehicles in 2025, a year-on-year increase of 7.33%, with a vehicle parts supporting rate of over 70%, providing core supporting services for 80% of vehicle enterprises in Beijing-Tianjin-Hebei, and building a complete automotive industrial ecology. Five enterprises including Jineng Electric Power, Zhaowei Software, Jinyangguang Energy, Jingyang Lijin Cable and Fuyang Electric Power were selected into the first batch of provincial advanced intelligent factories. More than 13% of UHV transformers, 67% of nuclear power transformers, 70% of hydropower transformers and 65% of high-speed rail traction transformers in China are manufactured in Baoding, making it an important R&D and manufacturing base for electric power equipment in China[11].

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2.1.3. Obvious Advantages of Ecological Background and "Landscape Baoding" Brand

With high-quality ecological resources such as the Taihang Mountains and Baiyangdian Lake, the ecological environment has been significantly improved. The average concentration of PM2.5 in the city has decreased by 27.4% cumulatively compared with 2020, the water quality of main rivers entering the lake has all reached Class III and above, and the comprehensive air quality index is 4.112, a year-on-year improvement of 7.86%. There are 275 good days, an increase of 29 days year-on-year, providing a solid support for the integrated development of eco-tourism, health care and low-carbon manufacturing[11].

2.1.4. Remarkable Achievements in Key Technological Accumulation and Green Transition

The technical level in photovoltaic, new energy vehicles and other fields is leading in the industry. In 2025, the energy consumption per unit added value of industries above designated size decreased by 12.6% year-on-year; clean energy has developed rapidly. In 2025, the installed capacity of renewable energy was 9.283 million kilowatts, accounting for 74.5% of the total installed power capacity, an increase of 25.1 percentage points compared with 2020; the proportion of new energy vehicle output has been increasing, rising from 8.0% in 2020 to 31.6% in 2025. The power generation of small hydropower exceeded 400 million kilowatt-hours, a new high in nearly 30 years. The first batch of the province's only V2G pilot project in China landed in Baoding. A total of 1,061 hydrogen energy sanitation, transportation heavy trucks and van delivery vehicles have been promoted, and the whole industrial chain layout of hydrogen energy "production, storage, transportation, addition and application" has been accelerated[11].

Table 1. Changes in Core Indicators of Green and Low-carbon industries in Baoding from 2020 to 2025

Indicators	2020	2025	Changes
Great Wall Motor New car sales (in 10,000 units)	111.16	132.37	Cumulative up 19 percent
The proportion of new energy vehicle production	8.0%	31.6%	Up 23.6 percentage points
Energy consumption per unit of added value of industrial enterprises above designated size	0.552	0.412	Cumulative reduction of 25 percent
Share of renewable energy installed capacity	49.4%	74.5%	Increase by 25.1 percentage points
Average PM2.5 concentration	Base period values	A cumulative decrease of 27.4%	Air quality improved significantly

Note: Energy consumption per unit of added value of industrial enterprises above designated size is a retroactive estimate based on actual figures for 2024 and the proportion of decline announced by the authorities.

2.2. Weaknesses

2.2.1. High External Dependence on Key Links in the Industrial Chain

Core components such as automotive-grade high-computing chips, high-end battery materials, and cutting-edge power semiconductors for power equipment rely on external supply, which not only affects the development of Baoding's automobile industry, but also may lead to unstable supply chains. The supporting capacity of small and medium-sized enterprises in the cluster is weak, with obvious homogeneous competition and insufficient professional collaboration, and the leading effect of chain owners has not been fully released.

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2.2.2. Weak Ability of Scientific and Technological Innovation Source

The regional distribution of innovation resources in Beijing-Tianjin-Hebei is unbalanced, mostly concentrated in Beijing and Tianjin, while Hebei is relatively weak. Compared with Beijing and Tianjin, Baoding has insufficient high-level research institutes (3-5) and national-level innovation platforms (18). The R&D investment intensity was 3.2% in 2025, lower than the average level of advanced cities in China (generally over 6% in Shenzhen, Suzhou, Optics Valley, etc.). The ability to break through basic research and cutting-edge technologies is not strong, and the local transformation rate of scientific and technological achievements is low.

2.2.3. High Cost Pressure on Green Transformation of Traditional Industries

Traditional industries such as building materials, textiles and equipment manufacturing still account for a large proportion. Energy-saving and carbon-reduction transformation requires a lot of capital and technical investment, and small and medium-sized enterprises lack endogenous motivation for transformation, with obvious short-term benefit pressure[1].

2.2.4. Imperfect Green Factor Market and Talent System

Carbon market, green power trading and carbon inclusive mechanism are still in the exploratory stage, with insufficient price discovery function; there is a large shortage of green technical talents and digital + low-carbon integrated talents, restricting the high-end upgrading of industries.

2.2.5. Insufficient Depth of Integration between Digital Technology and Green Industry

The research found that the digital transformation of micro, small and medium-sized enterprises lags behind, data silos are prominent, the penetration rate of technologies such as industrial Internet and digital twins in green manufacturing is not high, and there is a lack of public service platforms to support integrated innovation[3].

2.3. Opportunities

2.3.1. The Full Implementation of the Country's "Dual Carbon" Strategy Brings Long-term Market Dividends

The national energy structure, industrial structure and transportation structure are accelerating their transition to low-carbon and clean energy, and demand in areas such as new energy vehicles, photovoltaics, energy storage, hydrogen energy and smart grids continues to increase. The state has introduced ten major actions for carbon peaking, clarified carbon reduction routes for key industries, provided stable, long-term and large-scale market space for Baoding's two advantageous industries, and the industrial scale is expected to continue to grow at a high speed[8].

2.3.2. New Quality Productivity Becomes the Strongest Policy Hotspot for Green Industrial Upgrading

Central and local authorities are intensively deploying new quality productivity, with green and low-carbon, advanced manufacturing, and digital intelligence as the core directions. Two national-level advanced manufacturing clusters in Baoding have been included in the provincial key cultivation list and can enjoy multiple policy supports such as special support, land guarantee and energy consumption index inclination, providing strong support for the transformation of industries towards high-end, intelligent and green[6,10].

2.3.3. The Coordinated Development of the Beijing-Tianjin-Hebei Region Enters a New Stage of Deep Integration

A regional innovation pattern featuring research and development in Beijing and Tianjin, transformation in Baoding and application in Xiongan is accelerating. As universities, research institutes and national-level innovation centers in Beijing and Tianjin continue to move outward, Baoding can quickly make up for the shortage of local innovation resources by jointly

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building innovation enclories, joint laboratories and technology transfer bases, and make high-end talents, core technologies and major projects "available for its own use".

2.3.4. The Development of Xiongan New Area Brings Industrial Opportunities

Xiongan is positioned as a global leader in low-carbon smart cities and zero-carbon parks, using a large number of new energy vehicles, distributed photovoltaics, energy storage systems and smart grids to provide application scenarios and demonstration markets for local enterprises in Baoding, forming a close matching relationship of "Xiongan demand - Baoding supply".

2.3.5. The Advantages of the Climate Investment and Financing Pilot Policy Have Become Prominent

As one of the first batch of national climate investment and financing pilot projects, Baoding can give priority to carrying out innovative financial practices such as carbon emission reduction linked loans, carbon sink pledges, green REITs, and climate insurance, strive for low-cost funds from the central bank, effectively alleviate the difficulties and high costs of financing for enterprises' green transformation, and build a green financial support system.

2.4. Threats

2.4.1. Intense Homogeneous Competition in the National Green Industry

The Yangtze River Delta, the Pearl River Delta, the Chengdu-Chongqing region, Shandong and other places all take new energy vehicles, photovoltaic and energy storage as pillar industries, with stronger policy intensity, industrial chain integrity and talent capital attraction capacity, creating a strong suction effect on Baoding. The surrounding cities within the province are also simultaneously laying out similar industries, intensifying competition for projects, funds and talents, and continuously squeezing market space.

2.4.2. International Green Trade Barriers Have been Escalating

With the implementation of the EU's CBAM (Carbon Border Tax), the US Clean Energy Subsidy Act, and the carbon footprint certification rules in Europe and the US, export-oriented enterprises are facing additional carbon costs, certification costs, and compliance costs. The risk of blocked exports of some equipment manufacturing and photovoltaic modules in Baoding has risen, and the difficulty of expanding into international markets has increased[2].

2.4.3. The Rapid Iteration of Green Technologies Brings the Risk of Investment Sinking

New energy technology routes are changing at an accelerated pace, with continuous breakthroughs in solid-state batteries, hydrogen energy, sodium-ion batteries, and new energy storage, and existing production lines, technologies, and equipment of enterprises may face elimination in the short term. Wrong route selection will lead to huge investment losses, and small and medium-sized enterprises have weaker risk-resistance capabilities.

2.4.4. The Bottleneck of Renewable Energy Consumption and Grid Compatibility is Prominent

The installed capacity of wind and solar power in Baoding has grown rapidly, but the local consumption capacity is limited and the transmission channels are insufficient. There are hidden dangers of wind and solar power curtailment in some areas. The smart transformation of the power grid lags behind, making it difficult to support the access of large-scale distributed energy, energy storage and charging piles, which affects the efficient use of green energy.

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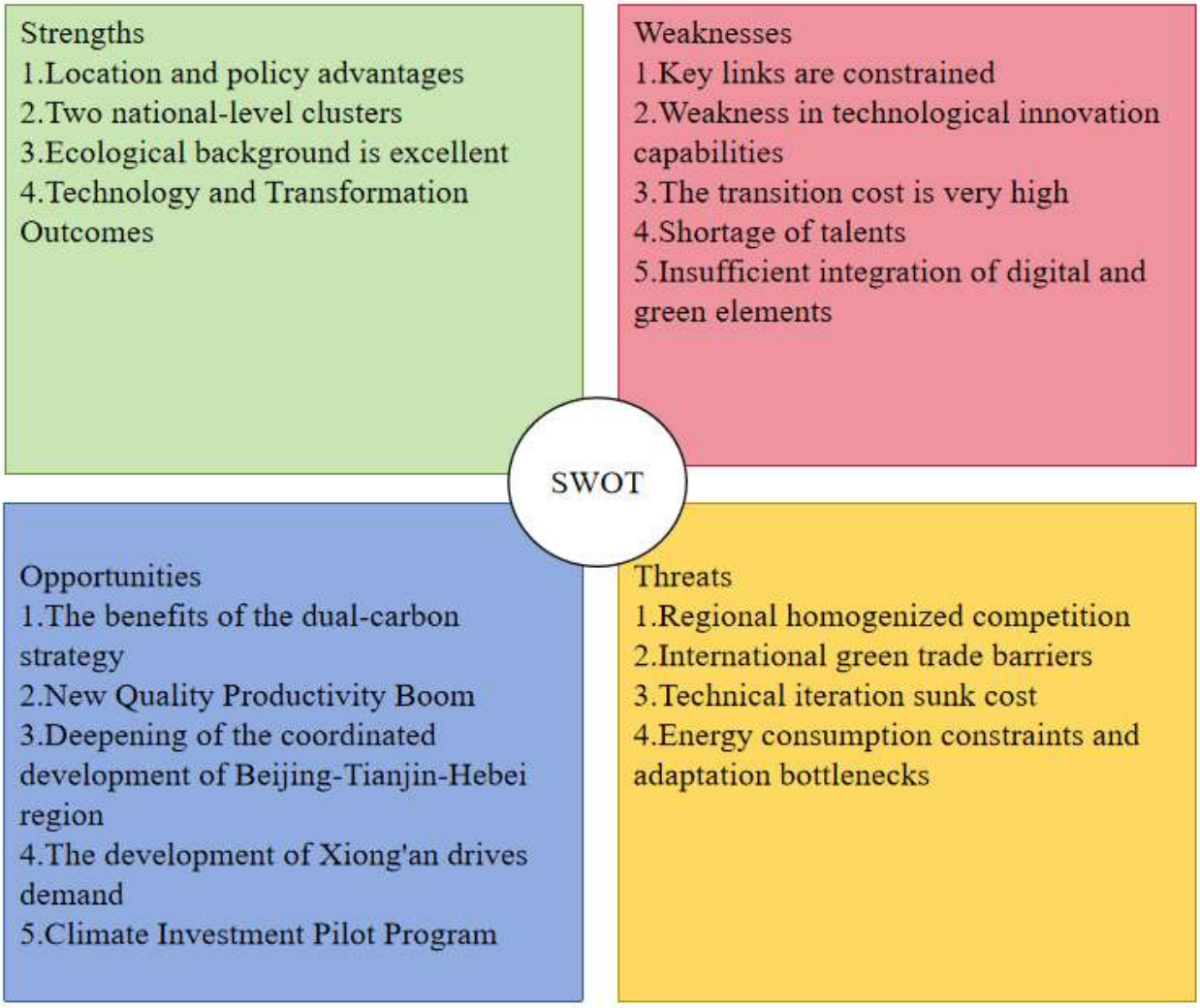

Fig. 1 SWOT Analysis Matrix for the Development of Baoding Region

3. Technology-Industry Integration Analysis and Industrial Competitiveness Reshaping

To gain an in-depth understanding of the intrinsic mechanisms of Baoding's green and low-carbon industrial development and to accurately diagnose development bottlenecks, this paper introduces and combines two specialized analytical tools, namely, Baoding's actual transformation technology - industrial integration innovation analysis and the diamond model for low-carbon transformation, to conduct in-depth analysis from the dimensions of technology integration and competitiveness composition.

3.1. Analysis of the Integration of Technology and Industry

The theory of technology-industry integration originated from the theory of industrial integration, which was first proposed by Rosenberg (1976), referring to technological innovation breaking industrial boundaries and promoting cross-field integration and development; Greenstein & Khanna (1997) further defined it as "the process in which originally independent markets gradually overlap and merge due to technological innovation."

Based on the two national advanced manufacturing clusters in Baoding, this paper analyzes the path of deep integration of new-generation information technology and green low-carbon industries and diagnoses the bottlenecks of Baoding's integrated development.

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3.1.1. Core Integration Level

The first is that digital technology empowers green manufacturing. By applying industrial Internet and digital twin technology, real-time monitoring and dynamic optimization of high-energy-consuming production processes such as automotive painting and equipment casting are achieved to achieve precise energy reduction and emission reduction; Draw on the experience of Nanjing Lishui Tianshan Cement to promote carbon emission monitoring systems in traditional industries and drive green transformation[3]. Second, data-driven green services. Optimize the layout of new energy vehicle charging piles and grid dispatching efficiency based on Internet of Vehicles big data, provide comprehensive energy management services based on energy Internet of Things data, and improve energy utilization efficiency. Third, artificial intelligence helps with research and development innovation. Use AI to screen and develop new green and low-carbon materials and shorten the R&D cycle; Optimize the location and layout of wind and solar power stations through climate model predictions to improve the utilization efficiency of renewable energy.

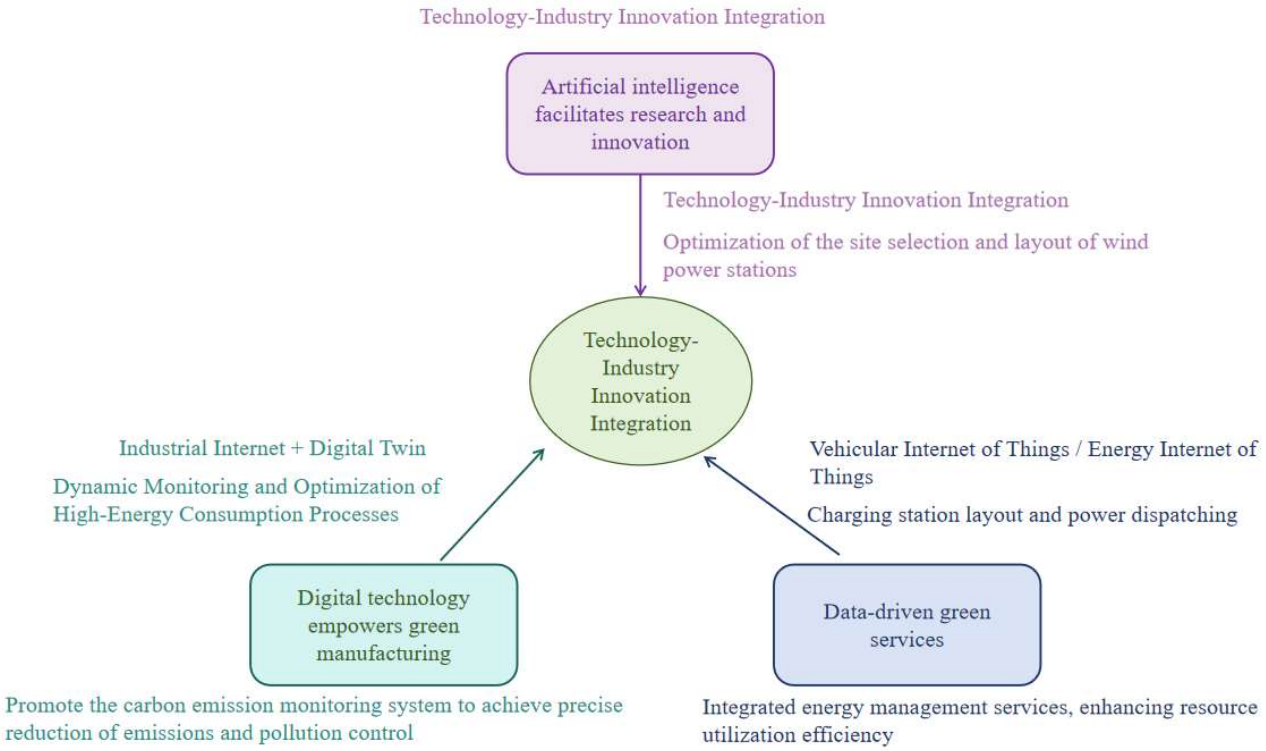

Fig. 2 Analysis of Technological and Industrial Innovation Integration in Baoding Region

3.1.2. Bottlenecks in Integrated Development

The depth of technology-industry integration in Baoding's green and low-carbon industries is insufficient, and an integrated development pattern covering the entire industrial chain and the entire process has not been formed. The main bottleneck lies in the slow progress of digital transformation of small, medium and micro enterprises, which lags far behind leading enterprises; There is a lack of data sharing mechanisms among enterprises and between government and enterprises, and the value of data resources has not been fully exploited. There is a shortage of integrated talents who are proficient in information technology and familiar with green and low-carbon industries; There is a lack of mature integrated public service platforms and an incomplete support system[3].

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3.2. Analysis of the Diamond Model for Low-carbon Transformation

Based on the Porter's Industrial Competitiveness Diamond Model and in combination with the requirements of low-carbon development, a low-carbonization perspective analysis of Baoding's green and low-carbon industrial competitiveness is conducted from four basic elements: production factors, demand conditions, related and supporting industries, enterprise strategy and peer competition, and two variables: government and opportunity[4], to point out the direction for the reshaping of industrial competitiveness.

3.2.1. Factors of Production: Transforming from Traditional Factors to Advanced Green Factors

The cost advantage of traditional production factors in Baoding is gradually weakening. To enhance industrial competitiveness, it is necessary to focus on advanced green factors such as green technology talents, low-carbon technology patents, green financial capital, data assets, etc. Supply shortfalls should be made up through policy guidance, talent introduction and other means to provide core factor support.

3.2.2. Demand Conditions: Cultivate High-end, Green Market Demand

The demand for green products and green services in the local area and the Beijing-Tianjin-Hebei region is growing rapidly and becoming increasingly high-end, which is an important support for industrial development. Green market demand can be guided and expanded by strengthening government green procurement and establishing carbon benefit mechanisms, and a stable market foundation can be cultivated[5].

3.2.3. Related and Supporting Industries: Improve the Green Supporting Industry System

The supporting industries in Baoding, such as green logistics, secondary use and recycling of power batteries, carbon verification and consulting services, are still in the cultivation stage and have not formed effective support. It is necessary to accelerate the development of these industries, improve the supporting system of the industrial chain, and achieve the integration and symbiosis of core industries and supporting industries.

3.2.4. Corporate Strategy and Peer Competition: Shift from Cost Competition to Green and Differentiated Competition

Guide enterprises within the cluster to change their development strategies, encourage "chain leader" enterprises such as Great Wall Motor to release supply chain carbon reduction targets, and drive the green transformation of small and medium-sized enterprises upstream and downstream; Regulate the market competition order, avoid low-price and homogeneous competition squeezing innovation investment, and create a healthy competitive environment[4].

3.2.5. Government Role: Transforming from Rule-maker to Innovation Ecosystem Builder

The government needs to develop a clear low-carbon industry development plan and technology roadmap, and improve the green standard system; Give full play to the advantages of climate investment and financing pilot projects and reduce the transformation costs of enterprises through green financial tools; Build industry-university-research-use collaborative innovation platforms, integrate and share innovation resources, and build a complete green and low-carbon industrial innovation ecosystem[9].

3.2.6. Opportunity Seizing: Transform Policy and Regional Opportunities into Practical Results for Industrial Development

Seize major opportunities such as the "dual carbon" pilot, the cultivation of new quality productive forces, and the deepening of coordinated innovation in the Beijing-Tianjin-Hebei region, and translate policy and regional opportunities into specific industrial projects,

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supportive policies and cooperation mechanisms. Leverage external opportunities to break through development bottlenecks and foster new industrial drivers[6].

4. Development of Green and Low-carbon Industries -Integrated Policy Recommendations for Building a "Landscape Baoding"

Based on the above SWOT analysis and technology-industry innovation integration analysis, combined with the actual development of Baoding's industries and the core goals of building "Mountain and Water Baoding", integrated policy recommendations that are scientific, targeted and operational are proposed from six dimensions.

First, strengthen top-level design and strategic guidance to draw a panoramic map of green and low-carbon industries. Formulate and release the Medium and Long-Term Plan for the Development of Green and low-carbon industries in Baoding City (2026-2035), clearly defining the specific goals, technical routes and key projects for the high-end, intelligent and green development of industries; Establish a leading group for the development of green and low-carbon industries headed by the main leaders of the city, coordinate the efforts of multiple departments, break down departmental barriers, and form synergy; Improve the green and low-carbon evaluation index system of the "7+20+N" modern industrial system, incorporate development achievements into the assessment of high-quality development of counties (cities, districts), establish assessment and reward and punishment mechanisms, and strengthen the development momentum of local governments[10,11].

Second, deepen cluster synergy and chain resilience to build a green industrial ecosystem of integration and symbiosis. Implement the "Cluster Chain Leader System 2.0", with municipal leaders serving as the "chief chain leaders" of the two major industrial clusters, promote the construction of "vehicle-energy-road-cloud" integrated synergy demonstration projects, and plan and build integration demonstration zones[1]; Set up a collaborative innovation fund for industrial clusters, support leading enterprises to form innovation consortia with small and medium-sized enterprises to jointly tackle common key technologies such as automotive-grade chips and solid-state batteries, and make up for the shortcomings of the industrial chain; Vigorously develop green supporting services, plan and build regional battery recycling and utilization centers and remanufacturing industrial bases, cultivate professional green service institutions, and improve the supporting industrial system.

Third, stimulate the momentum of scientific and technological innovation and promote deep integration and innovation of technology and industry. Connect with high-end innovation resources in Beijing and Tianjin, and jointly build Baoding Green Technology Research Institute or proof-of-concept Center with Tsinghua University, North China Electric Power University, etc., to create a hub for the transformation of green technologies in the Beijing-Tianjin-Hebei region; Increase support for enterprises' investment in green research and development, raise the proportion of additional deductions for research and development expenses, establish a green technology innovation risk compensation fund pool to reduce innovation risks for enterprises; Carry out the "Digital Empowerment for Green Manufacturing" initiative, select leading enterprises as transformation benchmarks, promote solutions such as digital twins, and provide special fund subsidies for technological transformation investment; Drawing on the experience of the Ruhr region in Germany, plan to build an innovation park for the hydrogen energy industry, connect the entire hydrogen energy industry chain, and cultivate new growth points for the industry[3,7].

Fourth, optimize the dual-wheel drive mechanism of policy and market to unleash the vitality of green and low-carbon development. Deepen the construction of climate investment and financing pilot projects, innovate special financial products such as carbon emission reduction linked loans, establish a green project database, and broaden industrial financing channels;

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Improve the green factor market mechanism, encourage key enterprises to participate in the national carbon market trading, explore regional green power trading and carbon benefit mechanisms, stimulate the intrinsic motivation of enterprises to transform, and formulate an enterprise mentoring system to deal with international green trade barriers; Innovate demand-side support policies, increase subsidies for the local promotion and application of green products, and take the lead in achieving full electrification and greenization in areas such as municipal engineering; Establish green and low-carbon industry colleges in cooperation with local universities in Baoding, customize and cultivate integrated talents, implement the green industry Leading Talent program, and attract high-end talents to gather[2,5].

Fifth, deepen the coordinated development of the Beijing-Tianjin-Hebei region and leverage regional resources to break through development bottlenecks. Deeply integrate into the coordinated development strategy of the Beijing-Tianjin-Hebei region, proactively align with the green and low-carbon industrial development plans of Beijing, Tianjin and Xiong 'an, build a coordinated development mechanism, take over the spillover of industries and the transformation of scientific and technological achievements, and create a regional green and low-carbon industrial supporting base; Strengthen ecological and industrial synergy with Xiongan New Area, jointly carry out ecological protection and restoration, low-carbon city construction, and promote industrial integration and development; Integrate into the "six chains and five clusters" industrial system of the Beijing-Tianjin-Hebei region, participate in the construction of the regional carbon market, promote the market-based trading of green elements, achieve resource sharing and complementary advantages, and enhance regional competitiveness[9,10].

Sixth, practice the concept of "Mountain and Water Baoding" and promote the deep integration of industry, city and greenery. Green and low-carbon industrial parks are planned and constructed as an integral part of "Mountain and Water Baoding", ecological red lines are strictly defined, ecological construction models such as sponge parks and distributed photovoltaic building integration are promoted, and "garden-like factories" are built; Promote the deep integration of industrial tourism and eco-tourism, develop industrial tourism routes centered on the Electric valley exhibition hall and the new energy industrial park, connect ecological resources such as Taihang Mountains and Baiyangdian, and create "mountain and water + low-carbon" characteristic tourism brands[11]; Establish an ecological co-governance mechanism involving communities, enterprises and the government, encourage enterprises to open up green production Spaces and participate in public welfare projects, enhance citizens' sense of identity and gain, and create a good atmosphere of public participation in construction.

5. Research Outlook

Against the backdrop of the global green transition and the in-depth advancement of the domestic "dual carbon" strategy, The Development of Green Low-Carbon Industries in Baoding Will Face New Opportunities and Challenges. The future research can be further deepened in three aspects: First, conduct quantitative evaluation research on the development of Baoding's green and low-carbon industries, build a scientific evaluation index system, and use panel data, econometric models, etc. to conduct dynamic monitoring and evaluation of the development achievements of the industries; Second, explore innovative development paths for the Baoding climate investment and financing pilot, conduct in-depth research on the application models of new financial tools such as carbon sink pledge loans and green REITs, and provide targeted practical suggestions for the pilot construction; Third, conduct empirical research on the coordinated development of green and low-carbon industries in the Beijing-Tianjin-Hebei region, analyze the internal mechanisms and influencing factors of regional industrial synergy,

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and propose specific strategies for promoting the integrated development of regional industries.

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