Innovation Driven and Fiscal Support: Path Optimization of Wind Power Industry

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Abstract. The development of new energy industry is in full swing, among which the most representative wind power industry attracts much attention. The development of wind power industry in China has entered a stable stage from its initial stage. Inconsistency, imbalance and inadequacy in the process of industrial development have gradually emerged as a ceiling hindering the in-depth development of wind power industry. To break the bottleneck of wind power industry, optimize the development path of wind power industry and realize green, healthy and sustainable development, the key lies in innovation drive, and the hinge lies in fiscal and taxation support.

Keywords: wind power industry; path optimization; innovation driven; fiscal support.

1. Introduction

At present, the whole international economy and society are chilly. The ecological environment is going from bad to worse, and economic development is very difficult. How to remove the obstacles to economic development, get rid of the burden of environmental pollution, and find new economic growth points are the severe tests that all countries need to face. The new energy as a powerful promoter of quality, efficiency and structural transformation has attracted the attention of the international community. Among them, the wind power industry with the most potential and commercial value is in the ascendant. The development of wind power industry is driven by innovation, which is supported by finance and taxation. The two are indispensable. Therefore, if the wind power industry wants sustainable development, the key lies in innovation drive, and the hinge lies in fiscal support.

2. Problems in the Development of Wind Power Industry

The main problems in the development of wind power industry are three aspects: inconsistency, imbalance and inadequacy.

2.1 Inconsistency

First, the high supply area of wind power is out of line with the high demand areas of electricity. China's wind energy resources are mainly distributed in the three North areas, while the high demand areas for electricity are mostly in the eastern coastal areas with developed economy. Such a mismatch of wind power resources makes local consumption of wind power difficult, resulting in waste of wind power. Second, the construction of wind farms is not in harmony with the grid construction. The construction and operation of wind farms must be supplemented by effective interconnection of power grids, but they are not only not unified in planning, but also inconsistent in the construction cycle. Third, policy and industrial development are not in harmony. The legal system of wind power industry is imperfect, the industrial policy lacks strategic layout and long-term planning, and the fiscal and taxation policies have limited incentives to wind power industry.

2.2 Imbalance

One the one hand, the domestic market and foreign markets are not balanced. Because of the policy protection, the enterprise has low cost and high income to enter the domestic market, which is the best choice for most wind power industry. However, the large-scale development of wind power industry has not brought about high-quality improvement, but resulted in excessive capacity. Over-

reliance on the domestic market makes small wind power enterprises unable to withstand the blow of abandoning wind power, and they are eliminated by the market before they can adjust themselves. the development potential of foreign markets is huge, but the pace of wind power enterprises going abroad is slow. One the other hand is the imbalance between land-based wind power and offshore wind power development. Offshore wind power development lags behind the development of onshore wind power. China's offshore wind energy resources are of high quality, high average wind speed, good stability, no land occupation, close to the eastern coastal high demand area for electricity. Developers are afraid of the difficulty of development and the high cost of operation and maintenance, which do not meet the objective requirements of industrial development. What's more, the onshore wind power market is relatively saturated and the development technology is relatively mature. It is an inevitable choice for wind power enterprises to turn to the sea to balance the development of green energy.

2.3 Inadequacy

First, the development of innovation is not enough. Technological innovation capability is insufficient, basic R & D investment is not enough, technology transfer and innovation achievement transformation are relatively low. Wind power enterprises which heavy technology import and light independent innovation are mostly lack of motivation and ability to seek business model innovation. Second, financial support is inadequate. Wind power industry has the characteristics of high technology, high risk and high return. High technology requires persistent capital injection, and high risk discourages many market investors. The sources of funds are narrow, the amount of financing is limited, the government's financial input is small, the subsidies are scattered and lack of tendencies. Insufficient capital support may lead to the capital chain break, which makes it difficult for enterprises to develop.

3. Optimizing the Development Path of Wind Power Industry

The development of wind power industry has undergone a series of evolutionary processes, such as blowout rapid growth, structural overcapacity, strategic industrial adjustment and so on. On the basis of a deep analysis of its development problems, we draw an important conclusion: if the wind power industry wants to rebound from the bottom, the key lies in innovation drive, and the hinge lies in fiscal support.

3.1 Innovation Driven

Technological innovation. Technological innovation is a long-term, systematic and arduous project. The direction of technological innovation of wind power industry is mainly in the following two aspects. On the one hand, it is necessary to solve the technical problems of industrial development. Improve R & D capability of key parts and components, get rid of technical constraints and channel dependence and attach importance to technological integration innovation. We should focus on developing energy storage technology to support the common development of physical energy storage, chemical energy storage and other energy storage technologies, and promote all-round development and diversified application of energy storage technologies. On the other hand, it is necessary to keep up with the trend of the era that establish the energy technology system and develop the energy Internet with the help of modern information technology and communication technology. Promoting the development of green energy networks, including energy storage facilities, Internet of Things, intelligent power utilities and other hardware and derivative services such as carbon trading, Internet finance, etc.

Financial innovation. First, we should transform traditional financing mode. We can encourage commercial banks to increase their credit scale and strength by means of government guarantee and intangible assets pledge, actively develop commercial credit financing, and alleviate the problem that the capital of upstream and downstream industrial chain cannot be in place in time. Second, we should improve the capital market and establish a multi-level capital market system. We should vigorously

develop the GEM (The Growth Enterprise) market, issue timely green bonds, combine financial derivatives with new energy, and develop new energy financial products. Third, establish a risk protection mechanism to attract the entry of social capital. Promote the development of venture capital, smooth the reasonable exit channels of investment, develope the insurance of wind and electricity business, and reduce the uncertainty of future earnings. The last is to develop science and technology finance, use blockchain technology to prevent financial risks and strengthen financial security.

Institutional Innovation. First of all, we need to innovate the legal mechanism and perfect relevant laws and regulations. The government should innovate the mechanism of intellectual property protection, improve the level and intensity of intellectual property protection, clarify the ownership of scientific and technological achievements, control the externality of scientific and technological innovation, perfect the legislation of transformation of scientific and technological achievements, build the mechanism of transformation of scientific and technological achievements, perfect the law of scientific and technological progress, improve the investment and financing system and the mechanism of venture capital and create a good external innovation system environment. Secondly, we must strengthen the top-level design and overall planning of industrial policies. Perfect the supporting system of industrial development, especially the implementation of industrial talent policy. Finally, innovate the government finance and taxation system. In the different stages of industrial development, we should support different fiscal and tax policies to respect the cycle rules of industrial development. Strengthen the financial budget management system and supervision management system, innovate the tax system and form a joint mechanism of incentive tax policy for clean energy and restrictive tax policy for polluted energy.

3.2 Fiscal Support

Financial subsidies. First of all, financial subsidies focus on key links. The key links include that increase R&D subsidies, raise subsidies for the construction of power transmission lines, and provide reasonable electricity price subsidies to carry out basic and general technology demonstration studies, and encourage original innovation. The second is to broaden the source of funds. Establish a long-term, stable, transparent and open mechanism for the income and expenditure of special funds for the wind power industry. The concrete manifestation is to expand sources of financial subsidy funds, improve the economic efficiency of financial subsidies, attach importance to the pulling effect of financial subsidies, and mobilize the broad participation of social funds. Finally, we should strengthen the operation and management of financial subsidies. It mainly includes budget management, performance management and supervision management. Strengthen the budget management of financial subsidies, strengthen budget constraints, standardize subsidies procedures, optimize budget adjustments, and establish a gradual withdrawal mechanism of financial subsidies; Focus on performance orientation, improve the performance management mechanism which integrates pre-planning, in-process control, feedback and adjustment after the event; Build information service platform, realize all-round dynamic supervision, establish accountability mechanism, increase the cost of violations and reduce dark box operation.

Tax incentives. It is mainly divided into three aspects: value added tax, income tax and other taxes. In the aspect of VAT, On the basis of the policy of levying or refunding 50% of wind power, the VAT rate should be reduced appropriately, and the imported advanced equipment should be exempted from VAT at the import stage, thus accelerating the depreciation of fan equipment. In the aspect of income tax, the government should appropriately extend the preferential period, improve the investment credit policy, and relax the conditions for wind power enterprises to apply preferential income tax rate. In addition, the R & D personnel should get the preferential policies to reduce personal income tax. In the aspect of other taxes, expand the scope of tariff free import equipment and increase tariff relief. Moreover, the incentive of natural resources such as tax on land occupation should use prudently.

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