

Research on Innovation and Management of New Energy Materials and Chemical Industry

Liao Dong

People's Government of Yantan District, Zigong, 643030, Sichuan, China

Keywords: New energy; material chemical industry; innovation and management

Abstract: With the rapid development of the world economy, energy consumption is gradually increasing, causing huge pollution to the environment. So all countries in the world begin to look for new energy to replace traditional energy, and promote the sustainable development of human society. In this context, new energy materials chemical industry began to rise. In the new energy materials chemical industry, China is still in the primary stage of development, compared with advanced countries abroad, there is still a certain gap. In this paper, the current situation of new energy material chemical industry in our country is analyzed, and the corresponding innovative management strategies are put forward.

1. Introduction

With the increasing global energy demand and environmental problems, the new energy materials and chemical industry has become a hot research and development area. The development of chemical industry of new energy materials is of great significance to sustainable development and energy crisis. However, the chemical industry of new energy materials is facing many challenges, such as technological innovation, market competition, policy support and so on. The purpose of this paper is to discuss the innovation and management of new energy materials chemical industry, and to provide theoretical and practical guidance for its sustainable development [1].

2. Characteristics of chemical industry of new energy materials

The chemical industry of new energy materials is an important part of China's energy industry and plays an important role in the development of China's national economy. Compared with the traditional energy material chemical industry, the new energy material chemical industry has the following characteristics: First, the new energy material chemical industry mainly includes many new energy materials, such as solar energy, wind energy, water energy, geothermal energy and so on. The chemical industry needs a lot of materials in its development. Secondly, the new energy materials chemical industry involves a wide range of fields, mainly including new energy batteries, renewable energy, nuclear energy and so on. Therefore, the development of chemical industry of new energy materials needs to rely on different fields. Finally, the new energy materials chemical industry has a certain scale effect. For example, in the photovoltaic battery manufacturing process,

if you want to produce qualified photovoltaic batteries need to use a lot of new energy batteries. Therefore, in the new energy materials and chemical industry, the scale effect is relatively obvious, and enterprises can only occupy a dominant position in market competition by having more products. In the new energy materials chemical industry, a large number of technical personnel are needed to carry out research, development and production management^[2].

3. Development trend of chemical industry of new energy materials

In recent years, China's new energy materials chemical industry has developed rapidly, has become an important pillar industry in the national economy. In order to promote the development of the chemical industry of new energy materials, the relevant departments shall do a good job in guidance, intensify support and strengthen supervision over enterprises so as to guarantee the healthy development of the chemical industry of new energy materials. Therefore, relevant departments should strengthen the research and development of chemical industry of new energy materials to provide more technical support for enterprises. In addition, the new energy materials chemical industry can be combined with other industries to expand its development space. For example, our country has developed solar energy and wind energy as important new energy materials for chemical products. Therefore, the relevant departments shall attach importance to the research and development of chemical products of solar energy, wind energy and other new energy materials, and promote their combination with other industries so as to realize the optimization and upgrading of industrial structure^[3].

4. Innovation and management measures for chemical industry of new energy materials

4.1 Strengthening infrastructure construction and improving industrial structure

The government plays a key role in the development of new energy materials and chemical industry, and can promote the sustainable development of new energy materials and chemical industry. Specifically, the government should formulate relevant laws and regulations to regulate and restrict the development of new energy materials chemical industry. At the same time, the government should also constantly improve the corresponding policies, and timely update the policy content to ensure that it can be consistent with the relevant national policies to meet the actual needs of the development of new energy materials chemical industry^[4].

4.1.1 Strengthening infrastructure construction

In recent years, the investment in chemical industry of new energy materials is increasing, which makes it develop rapidly, but there are still some problems. For example: some new energy materials chemical industry infrastructure construction is backward, the relevant enterprises cannot provide a good environment for the development of new energy materials chemical industry. Therefore, the government should strengthen the investment in infrastructure construction to meet the actual needs of new energy materials chemical industry development. Specifically, the government should strengthen the investment in new energy materials chemical industry, increase the new energy materials chemical industry technology research. At the same time, we should establish a sound market mechanism to provide enterprises with a good environment for development, and provide enterprises with good services and support. For example, new energy material chemical enterprises can be invested through government subsidies or preferential policies to enable them to carry out relevant work smoothly. At the same time, the government should establish a perfect talent introduction and training mechanism to ensure that new energy materials

chemical industry can attract more talents into the industry. The production efficiency and quality of chemical industry of new energy materials can be effectively improved by technological innovation. For example, in the process of R&D, we can use Internet technology, cloud computing technology, big data technology and other advanced technical means to solve the problems existing in the production process. Through the use of advanced technical means can effectively improve the work efficiency and quality. For example, a sound Internet information platform, cloud computing platform, big data platform and other technical means may be established to enable enterprises to timely obtain market information and relevant materials and understand market demand, providing a favorable development environment for the new energy materials and chemical industry through the above content, and providing good services and support.

4.1.2 Improving industrial structure

In the development of new energy materials and chemical industry, enterprises, as the main body of the market, have a more direct understanding of market demand and consumption, so they can effectively analyze the market demand in the production process, and adjust their production plans and production contents according to the changes of market demand. Adjusting production plans and content through changes in market demand can help enterprises save production costs and improve economic efficiency. At the same time, enterprises should optimize their own industrial structure, set up a reasonable level of product structure, so as to reduce the consumption of raw materials and energy. Specifically, in the development process of new energy materials chemical industry, enterprises can adjust or redesign their existing products to adapt to market demand changes. For those enterprises with unsalable products, they should update and transform the products in time to meet the consumers' demands for new products. When adjusting or redesigning their own products, enterprises should also follow the law of market development to optimize and adjust the industrial structure. For example, if the market prospect of an industry is good, the enterprise may give priority to producing the products of this industry in the production process; if the market prospect of an industry is bad, the enterprise may give priority to producing the products of another industry in the production process. Through this way for enterprises to save a lot of production costs and resource consumption. New energy materials chemical industry in the development process should also pay attention to the coordination and balance between industrial structure. Concretely speaking, when optimizing and adjusting the industrial structure, enterprises should make reasonable industrial development plans. Enterprises can formulate their own actual situation in line with their own development requirements and the status quo of the industrial planning program. At the same time, enterprises should also constantly optimize the industrial structure, so that the industrial structure can match the actual needs of new energy materials and chemical industry. Rational layout and planning of chemical industry of new energy materials can reduce the problems and difficulties in the production process and effectively improve its economic efficiency^[5].

4.2 Strengthening government support

In the new energy material chemical industry, the government can accelerate the industrialization of the new energy material chemical industry by giving preferential policies and increasing financial support. First, preferential policies may be given to enterprises. The government may take measures such as tax relief or financial subsidies to help enterprises reduce production costs and promote the healthy development of the industry. The government can set up a special fund to support the research and development and production of the industry, so as to realize the industrialization of new energy materials and chemical industry. The government may support the

chemical industry of new energy materials by means of direct subsidies, tax reduction and exemption, etc., so as to promote the healthy development of the industry. The government can strengthen the introduction of excellent talents, provide good scientific research environment for excellent talents, and promote the development of new energy materials and chemical industry; The government should strengthen the supervision of new energy materials and chemical industry, standardize the behavior of enterprises, and ensure the production in line with national policies and regulations. The government can formulate relevant laws and regulations to regulate the development of new energy materials chemical industry and promote its healthy and orderly development.

4.3 Encouraging independent innovation

Our country new energy material chemical industry's technical innovation level is also quite low, compares with the world advanced country also has the very big disparity. Therefore, in the new energy materials and chemical industry, the state should increase support for enterprises, encourage enterprises to carry out independent innovation, increase investment in research and development, enable enterprises to master core technology, and thus achieve the improvement of technological innovation. In addition, the government can encourage enterprises to carry out independent innovation through government procurement, tax relief and other policies. For example, the use of new energy materials in the chemical industry, new energy vehicles need a large number of new energy materials chemical products, and these products need to be purchased through the country. In addition, the government can also give new energy materials chemical industry tax relief, financing incentives and other policy support, so as to enhance the initiative of independent innovation. In a word, our country should strengthen the support to the new energy material chemical industry, provide good development environment and policy support for enterprises, and promote the development of new energy material chemical industry.

4.4 Build public service platforms

In order to promote the sustainable development of new energy materials and chemical industry, it is necessary to build a public service platform to provide good services for enterprises and consumers. This will help to reduce the price and improve the quality of the products. Therefore, it is necessary to establish a public service platform for the scientific management of the chemical industry of new energy materials. First, governments can provide public service platforms. The government may formulate relevant policies and measures to encourage enterprises and consumers to participate in the construction of the platform. Thirdly, we should strengthen the infrastructure construction of new energy materials and chemical industry, such as setting up professional laboratories, workshops and testing sites. Fourthly, we should establish a training and training platform for new energy materials and chemical industry. The information platform can help enterprises to understand the market dynamics and consumer demand information, and at the same time can help consumers understand product prices and other related information. Through the establishment of cooperative alliance, can help enterprises understand market information, access to technical support and product sales resources. Through the development of chemical industry of new energy materials with partners, we can promote the sustainable development of chemical industry of new energy materials.

5. Conclusion

To sum up, the development of new energy materials chemical industry can not only meet the

needs of social development, but also solve environmental pollution problems and promote sustainable economic development. With the continuous development of social economy, people's demand for energy is increasing, but the traditional energy cannot meet people's demand for energy. Therefore, in the new energy materials chemical industry, China should actively learn from foreign advanced technology to accelerate the innovation and management of new energy materials chemical industry. In terms of innovation, we can introduce foreign advanced technology, and in terms of management, we can innovate from management mechanism, personnel training and marketing. In order to promote the rapid development of new energy materials and chemical industry, the government needs to strengthen support, improve the relevant policies and laws and regulations; At the same time, the corresponding marketing strategy should be made. Only by innovating and managing new energy materials and chemical industry can it stand out in the fierce market competition and promote the rapid development of new energy materials and chemical industry.

References

- [1] Shu Hongbo, Liang Qianqian, Li Dan, et al. *Exploration on the Cultivation of Innovation Ability of Postgraduates in Chemistry and Chemical Industry Based on the Characteristics of Local New Energy Industries* [J]. *Guangdong Chemical Industry*, 2021. DOI: 10.3969/j.isn.1007-1865.2021.17.13 9.
- [2] Yao Linru, Fu Sixiang, Peng Qingling. *The Application of Renewable Energy in China's Chemical Industry—Review of "New Energy Materials - Fundamentals and Applications"* [J]. *Daily Chemical Industry*, 2021, 51 (9): 2
- [3] Zhang Yanli, Zhang Zhennan. *Research on the Development Strategy of Guangdong New Energy Automobile Industry under the "Double Cycle" Development Pattern* [J]. *World Economic Exploration*, 2023, 12 (2): 8. DOI: 10.12677/WER.2023.122024.
- [4] Liu Manqing, Hu Aiping, Zhang Chunyan. *Study on the Relationship between the Dual Innovation Capability of Enterprises and the Budget Management Mode under the New Normal of the Economy* [J]. *China Trade and Commerce*, 2021, 000 (020): 128-131.
- [5] Min Wei, Cheng Lele, Yu Muhuo, et al. *Low velocity impact properties of foam core composites with different thickness prepared by thermal expansion process* [J]. *Journal of Composite Materials*, 2023, 41: 1-15.