

# In the era of low-carbon economy, how will the new energy automobile industry develop

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**Abstract:** With people paying more and more attention to energy, low-carbon and environment-friendly lifestyle has become the main direction of modern people. With the continuous improvement of people's quality of life, the demand for automobiles is increasing. Combined with people's emphasis on energy saving, developing new energy automobile industry is a necessary trend of modern economic and social development. At present, the development of China's new energy automobile industry is still in the primary stage, and it will face problems, such as the related technologies of new energy automobiles, which need to be further improved, and the capital investment of new energy automobile industry is insufficient, all of which need to be further optimized and adjusted by enterprises and the government according to the current situation. This article mainly take this as the topic and discuss the related contents.

**Keywords:** Low Carbon Economy; New Energy; Automobile Industry; Develop

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## 1. Forward

Low-carbon economy mainly uses low-consumption and low-emission resources to protect the ecological environment, because China is a country with a large population and a large demand for energy. With the continuous development of modern economy and society, there is a gap in resources. Actively developing new energy industry is a necessary trend in the development of modern times. People's demand for automobiles is getting higher, and developing the new energy automobile industry is conducive to meet people's expectation and demand for a better life. However, in the new energy automobile industry, the relevant core technologies in China have not yet achieved a breakthrough. It is necessary for people to increase their investment in the new energy automobile industry and promote the innovation and development of China's new energy automobile industry.

## 2. Important value of continuous innovation and development of new energy automobile industry

Under the background of people's pursuit of ecological environment protection, developing the new energy automobile industry is conducive to meeting the needs of modern people for economic and social development. It is necessary to develop new energy automobile industry.<sup>[1]</sup>

### 2.1 China's oil resources are extremely scarce

Through investigation and research, we can find that China is shortage in oil resources and has a large population, so oils depend on imports, which will lead to China in a passive state. In 1998, the price of crude oil was stable at 10 US dollars, but after 2003, the price of crude oil reached 25 US dollars. In 2004, the price of crude oil has risen to 90 US dollars, and now the price of it is showing an increase. If our country can't get rid of the dependence on crude oil, it will

hinder our economic development, and at the same time, it will make our energy use in a passive state, and we will be subject to other countries. China should actively explore new energy sources to realize the continuous development of China's economy and society. Under the background of rapid development of modern automobile industry, clean energy and automobile industry can be combined to develop new energy automobile industry, which can not only meet people's travel needs, but also play a role in saving energy.

## **2.2 Achieve the transformation and optimization of China's automobile industry**

After 10 years of growth, China's automobile industry showed a downward trend in 2010. At this time, experts and enterprises realized the saturation of the automobile market, and people's demand for automobiles has reached a height. Therefore, we should adjust and optimize the industry to ensure the healthy development of the automobile market, which is also the content that China's automobile industry needs to think about. With modern people's attention to environmental protection, developing new energy vehicles can meet the needs of them, which is a challenge that people need to accept. At the same time, accelerating the development of new energy vehicles can realize the transformation and optimization of automobile industry, thus realizing the adjustment of the whole industrial structure and ensuring the long-term development of automobile enterprises in the future.<sup>[2]</sup>

## **2.3 Conducive to guiding the new development direction of the automobile industry**

There are many factors that can realize the rapid development and growth of the new energy automobile industry in China. Firstly, China has a relatively cheap labor force. Secondly, China has a large population, so the market is large, and the government supports the development of new energy products. All these factors can help China to become the biggest consumer market of new energy vehicles. As far as the development of new energy vehicles is concerned, if more new energy taxis and buses are put into use, 780 million liters of gasoline will be saved every year, which can help China become an industrial power. New energy vehicles will also become a new trend in the future development of automobile industry, and it is also the content that the future automobile industry needs to think about.

## **3. Problems faced by the new energy automobile industry in the actual development process**

Combined with the above understanding, we know the necessity of developing new energy vehicles. The government and enterprises should carry out research and development of new energy vehicles according to the reality in China, and promote the use of new energy vehicles to facilitate people's lives. However, there will be some problems in the actual application process. The following will discuss the problems faced in the process of developing the new energy automobile industry.<sup>[3]</sup>

### **3.1 China has not mastered the core technology of new energy vehicles**

Although the research and development speed of China's new energy vehicles is fast, enterprises have not mastered the core technologies, and there is a gap between them and some old-fashioned automobile enterprises. In China, there is lack of innovation ability and brand influence, and these problems are also the main factors restricting the development of new energy automobile industry. On the whole, the development prospect of China's new energy vehicle industry is good, but the mastery of the core technologies of new energy vehicles is not particularly profound, such as the development of some hybrid vehicles and fuel cell vehicle technologies, which need to be broken through. The core components of electric vehicles, such as electronic control system and battery, have not been developed independently in China.

### **3.2 Insufficient support in manpower and material resources**

China's new energy vehicles have also carried out corresponding pilot work in cities, and the development of

new energy vehicles is rapid, but there is a gap in the corresponding management talents and technicians. Through the investigation and research, we can know that in the use of some key components and the development of raw materials, scientific and technical personnel are required to provide certain technical support, and relevant construction personnel are also required to complete the corresponding construction work to ensure the research and development of new energy vehicles. However, there are no relevant talents to support the research and development of new energy vehicles. At the same time, in order to realize automation and industrialization development, new energy vehicles need a lot of capital investment, especially in the introduction of some core technologies, and they need a lot of capital to carry out technological innovation. However, the funds are insufficient, which invested by the government and enterprises, and can not guarantee the smooth development of tasks, so some enterprises cut corners, so that the quality of new energy vehicles can not be well guaranteed, and affects consumers' enthusiasm for new energy vehicles.

### **3.3 State lacks clear policy and strategy support**

Although China has certain policy support for the new energy automobile industry, most of these policies are faced by manufacturers. The targets of these policies formulated by the state are not comprehensive, and there is no more perfect consumption policy for the consumers of new energy vehicles, so as to give consumers better protection. Usually, the price of new energy vehicles is 1~2 times higher than ordinary vehicles, and in some areas, the price can be as high as several times. When consumers buy cars, they tend to buy the one with lower prices. At this time, the state does not give consumers certain subsidies, so consumers' demand for new energy vehicles will not be mobilized, and the market for new energy vehicles will shrink. The government does not have a clear policy to give new energy automobile enterprises and corresponding consumers relevant policy support and guarantee, which will lead to some difficulties in the process of operation of relevant enterprises and the inability to mobilize the initiative of consumers. [4]

## **4. Specific countermeasures to optimize the existing problems in the new energy automobile industry**

Combined with the above understanding, we understand the problems in the current development of new energy automobile industry, which also require enterprises and governments to make relevant measures according to the actual market situation, make adjustment and optimization, realize the transformation of automobile industry, and promote the reform and development of China's new energy automobile industry. The specific optimization measures will be discussed below.

### **4.1 Government and enterprises should continuously invest relevant funds**

Any project can't be carried out without the support of funds. Only the guarantee of corresponding funds can ensure the smooth development of all the work. China is in a critical period of economic transformation, so we should pay attention to the development strategy of low-carbon economy. The government should give some financial support to the development of the new energy automobile industry, and at the same time fulfill the normal duties of our country. In the process of new energy automobile industry development, it will involve the previous market investigation and new energy testing, and each work needs a certain amount of financial support. As the development object of the new energy automobile industry, enterprises should invest a certain amount of funds, so as to better ensure the healthy and stable development of enterprises and realize the sustainability of enterprises.

### **4.2 Actively develop the core technologies of the new energy automobile industry**

The government should actively play its responsibilities, promote close cooperation among research institutions and enterprises, further research and development and innovation on core technologies of new energy vehicles, strengthen capital investment in research on new energy vehicles, further innovate related to core technologies of automobiles, and avoid China's technology being subject to other countries. In the early stage of industrial development,

the government usually needs to give full play in the guiding role, integrate domestic resources, determine the specific scope of new energy vehicle industry technology, and formulate a more perfect research and development plan for new energy vehicles in combination with the actual development status in China. Enterprises and R&D institutions should also share relevant technologies, so as to facilitate further exploration of core technologies and jointly promote R&D and innovation of core technologies of new energy vehicles.

#### **4.3 Attract more talents to invest in the process of industrial transformation**

The new energy automobile industry is an emerging industry, and the promotion and publicity in the early stage is important. It is not enough to rely on one or two enterprises to promote it, it requires the participation of industry personnel, including the government and enterprises, and the news media and R&D institutions, so as to give full play to their own strength to carry out publicity work. In the promotion of new energy vehicles, we should attract relevant talents, improve the popularity of new energy vehicles in society and attract consumers to buy them. In addition, we should attract professional talents in management, production and operation, etc., so as to promote the smooth development of all links, and carry out regular training for relevant talents to ensure their professionalism. Enterprises should also make corresponding adjustments in related salary and treatment, and introduce world-advanced talents to realize the transformation of China's new energy automobile industry.

#### **4.4 Actively promote international technical cooperation**

Enterprises in the new energy automobile industry usually have rich experience and perfect technology in developed countries such as the United States and Japan. In the process of new energy vehicle technology R&D, China can also cooperate with these countries, learn from the successful experience of developed countries, and carry out transnational cooperation, so as to improve the level of technology research and development in China. It is possible to establish relevant R&D institutions with some multinational enterprises to share R&D results, and also to introduce R&D results from some developed countries, so as to promote the development of China's new energy automobile industry. In this process, we can also improve our technological creativity and lay a solid foundation for the socialist economic and social construction with Chinese characteristics.

### **Concluding remarks**

In short, under the current economic and social development background, we should continuously strengthen the research and development of new energy, combine new energy with the automobile industry, and promote the transformation and upgrading of the modern automobile industry. Actively face the difficulties in the development of modern new energy automobile industry, and improve the core technology level of new energy automobile in China.

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