# The Development Status and Suggestions of China's Green Certificate Trading Market under the Background of Energy Saving and Emission Reduction

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#### **Abstract**

Due to the development of society, the progress of science and technology and the change of people's ideas, the awareness of protecting the environment is closely related to everyone's life. The call for energy conservation and emission reduction is becoming more and more intense. Against this background, China's green certificate trading promotes the development of various trading markets towards greener, low-carbon and carbon-free energy. In order to promote energy conservation and emission reduction, China now needs to develop new green energy to protect the environment and develop better at the same time. It is particularly critical and urgent. But just green energy is not enough, it needs to be renewable energy. In this process, not only the relevant cooperation of the market, but also the government's Macro-control policies are needed to appeal and guide various manufacturers to develop towards green and renewable development. China's current green certificate policy is still in its infancy, and it is necessary to continuously explore and sum up experience to improve the integrity of the policy and make the trading market more green.

## **Keywords**

**Energy Conservation and Emission Reduction; Green Certificate Trading.** 

## 1. Background

According to relevant surveys, green certificate transactions have set off waves in at least a dozen countries. The green certificate is an electronic certificate with special significance for the country to provide power generation without conventional renewable energy, and it is a certification for these manufacturers. It also plays a vital role in setting benchmarks. China cannot afford to delay energy conservation and emission reduction. One is the policy of protecting the environment. "Lucid waters and lush mountains are invaluable assets." Only if the environment is still there can there be the possibility of continuous development and creativity in the future. If the environment is damaged or disappears, then the There is no future to speak of, and there is no need for development; secondly, the amount of China's current renewable energy relying on foreign imports cannot be underestimated, which has also become a major limitation of development. In order to break this restriction, China hopes to rely on the green certificate transaction to make up for this defect, to break through the encirclement, open up a new path, and seek a better development direction.

Green certificate transactions are free and subject to control. There are ideas to buy green energy through relevant green certificate manufacturers and other channels. In the context of

green certificate transactions, the constant market competition has become the stabilization of electricity prices, and the state needs to invest capital in other better-developed enterprises to develop innovative ideas to develop renewable energy to compensate for electricity prices. The more traditional electric energy, wind energy, and solar energy have not been able to enjoy the protection of the new national policy, and the demand for development has been further reduced. In addition to these, new green energy has the hope of step by step development and investment. All kinds of market control and coordination are closely related to China's energy conservation and emission reduction. During this period, the role of the market should be rationally utilized, and the rate of energy waste should be continuously reduced to achieve the goal more rationally and scientifically. All kinds of manufacturer mechanisms coexist, and mutual integration and competition are more conducive to the realization of energy conservation and emission reduction.

## 2. Development Status

In China's trading market, we analyze the situation of various data and licenses. At this stage, the green licenses in China's green license trading market are not highly owned and the number of transactions is small, while the traditional green license market is obviously more attractive than the current one. The new photovoltaics developed in stages will be better and superior, but the transaction price of photovoltaics is in turn higher than the traditional wind power green certificate, which is obviously not conducive to the development of new green renewable energy, showing a one-sided trend. According to the investigation of China's green certificate trading platform, as of September 2020, the number of wind power-related enterprises with green certificates is nearly 5.7 million. Although the number is large, the proportion of wind power enterprises without green certificates is as high as that due to the large base. 77%, the real transaction volume of wind power enterprises is about 40,000, and those with green certificates are very few. However, the final transaction price of wind power green certificates can be as high as more than 300 yuan per piece, and as low as 130 per piece. The average price is about 174 pieces; compared with photovoltaics, the number of green certificates is about 5.55 million, and 86% of them do not have green certificates. The actual number of photovoltaic green certificates is less than 170. There are very few people who have green certificates. The average transaction price of photovoltaic green certificates is almost 700 yuan.

To sum up, from the perspective of new energy manufacturers, the new national green certificate policy can alleviate the difficulty of lack of subsidies in some cases. Possibility, in this case, the manufacturers who go to get green certificates and produce electricity can only get subsidies at best. It is even more difficult to develop, and the feeling of powerlessness emerges suddenly. We can only rely on the pattern and the conscience of various manufacturers to seek a trace of survival. In this regard, if we want to further develop the green certificate trading market through the control and support of the government and the state, as well as the guidance of the society, the development of the green certificate trading market in the next few years has a long way to go. Doing a good job of yourself and constantly exploring and discovering innovation is the top priority for the country to reduce subsidies in the green certificate trading market and cannot be ignored.

## 3. Problems Faced and Related Suggestions

### 3.1. Problems in the Development Process

#### 3.1.1. The Price of Green Certificate in China is High

From the current stage, it can be seen that the government's subsidies for new renewable energy are becoming less and less. It can be deduced that the Chinese green certificate trading

market, which is Macro-controlled by the Chinese government, is beginning to enter a stage of price stability and control. Compared with the previous situation of relying only on government subsidies, the price of certified electricity has been significantly improved. Even so, there is still a lot of room for improvement, because internationally, the price of electricity abroad is still relatively favorable and cheap. The reason for not being able to go out of China may be due to cost or other things. There is a standard price tag in the world, which is far lower than that in China. Therefore, the cost of enterprises that want to develop a green certificate in China will become a problem that they have to consider or cannot ignore, which will lead to various Issues such as counterfeiting green cards, buying green cards, etc.

#### 3.1.2. The International Community does not Recognize the Domestic Green Certificate

As of 2022, although the domestic green certificate certification work is within the scope of the relevant data, there must be some differences between itself and the international practice. These differences may come from cultural or linguistic communication. But these are unavoidable, which brings a lot of trouble to China and the international community green certificate certification. Most of the enterprises that need to certify green certificates are larger enterprises with relatively strong strength and capital to purchase green certificates and avoid the trouble of green certificate certification. But for small and medium-sized enterprises, it is difficult to reach the sky. Basically, it has no chance with the green certificate, but seeking the green certificate in China will not be recognized internationally, which makes the small and medium-sized enterprises under the large enterprises in a dilemma, and they have to find other ways. This also tells in disguise that there is still a long way to go for domestic green certificates to require international certification.

## 3.1.3. SMEs will not be Given Priority

Because the influence on themselves is not very large, they rarely buy green certificates in their own situation or development status. Most of the green certificates are purchased by companies seeking development for a better reputation, and there is only one chance. Green electricity is still not very attractive to small and medium-sized enterprises, so it is more to maintain the status quo and take the opportunity to develop.

#### 3.1.4. Defects of the Trading System

At this stage, the green certificate trading market in China is free and unrestricted to purchase for their own purposes. The new policies issued by the state, the relevant protection measures and the data of the simulated implementation are all based on the previous calculation. After 2021, the government will comprehensively promote the certification evaluation and consideration of green certificates, so it seems that there are still many The trading system needs to be further updated and iterated.

#### 3.2. Related Suggestions

#### 3.2.1. Improvement of New Renewable Energy Mechanism

Analysis of relevant data from the international community shows that the recognition of green certificates and the continuous inclusion of renewable energy can better develop society. Various relevant and powerful projects derived on this basis can develop in accordance with the market's own requirements and supply and demand, and cooperate and integrate with each other in different aspects to promote the continuous expansion and effective allocation of capital in various regions. Provide a more efficient way to develop the economy. For the continuous improvement of the new renewable energy mechanism, I believe that the domestic green certificate can become more and more powerful, and it will continue to break through and improve itself.

#### 3.2.2. Implementing Purchase Authentication for Enterprises

According to the previous situation in China, in the relevant rules, there is no mandatory purchase of certification in the relevant consequences, and the restrictions are relatively weak. More individuals and small and medium-sized enterprises will not want to buy green certificates, there are basically no transactions, and the market situation is weak. However, from the analysis of the international community, it is concluded that the certification of the green certificate is particularly important for a self-employed enterprise to rise to the country. Therefore, it is necessary to continue to develop in line with the international community. If necessary, under the premise of national Macro-control, forcibly purchase green certificates and increase the number of purchases due to their own circumstances. All departments should coordinate and cooperate, and rationally plan how to deepen related relationships. The most important thing is to try to mobilize the positive purchasing intention of the society.

## 3.2.3. Expand the Certification Scope of Green Certificate

At this stage in China, it is necessary to expand the certification scope of green certificates for new renewable energy, and other renewable energy other than wind power and solar photovoltaic should also be included in the plan, but it should also be combined with its own development status to better fit its own. specificity and rationality.

#### 3.2.4. Improve the International Influence of Domestic Green Certificates

To sum up, the international community does not recognize the domestic green certificate, and the price of the domestic green certificate remains high, and the cost of purchasing is relatively high, making it difficult to compete with the international community. Therefore, in the next few years, it is necessary to better strengthen international recognition and supervision to enhance the competitiveness of China's green certificates. At the same time, the price of the transaction should be reduced.

#### 3.2.5. Reasonable Setting of National Macro-control Measures

Starting from the direction outside the green certificate trading market, Macro-control is carried out in a reasonable and coordinated manner. In addition, as long as the green certificate is guaranteed by the relevant system, it can be connected with the relevant quantities in other markets and make overall planning. For example, other new renewable energy projects can be developed as energy-saving and emission-reduction projects to purchase green certificates to avoid unnecessary troubles and risks. Various management departments and the government in the market need to actively and effectively dredge and resolve difficulties, contribute to better implementation measures, minimize the occurrence of subsidies, and make reasonable use of existing resources for design and communication, so as to improve Good energy saving and emission reduction.

#### 3.2.6. Interrelationship between Markets and Renewable Energy

The independent purchase of green certificates should be a recognition of renewable energy and reduce the pressure on the government's Macro-control. However, it seems that there is still a certain degree of difficulty, because the price in the domestic market itself is high, and there are very few companies that want to buy independently. The effectiveness of this method is limited at best. Relevant government departments need to make overall planning, reasonably arrange the weights, and encourage the purchase of green certificates in order to better integrate with the international community.

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