Analysis on the Transaction Integration of Air Pollution Emission in China

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Abstract: The premise condition of emission trading is the total emission control. Environmental capacity refers to the maximum load of a pollutant that can be accommodated by an environment on the premise that human survival and natural state are not endangered. We allow a certain amount of sewage, because zero emissions in reality any production and consumption may not achieve pollution. However, such permission must be quantified and a certain amount of surplus environmental capacity is required. If the environmental capacity is saturated, there will be no surplus emission rights, there will be no more emissions trading. In the mid and late 1980s, China began to establish the emission permit system. Since 1989, five systems of environmental management have been proposed, which initially created the feasibility of the system for carrying out emission trading. After nearly 40 years of development, China's emissions trading has also developed at a stage. This paper will analyze the current situation and problems of air pollutant emission trading in China.

1. Introduction

1.1 The establishment of emission trading system is later than Europe, America and other developed countries

Emissions trading originated in the United States, first by the economist Dales in 1968 in the "pollution, wealth and price" in the book of ideas, the United States in 1977 and in 1990 revised "Clean Air Act" to encourage companies to participate in the market for the sale of pollution rights. In order to carry out the legal establishment of emissions trading system, and the implementation of emission trading in the control of sulfur dioxide emissions, has been successful. According to the "Clean Air Act" requirements: object of emission trading is a trader to discharge the pollutants. Due to the variety of pollutants discharged by enterprises according to law, the legitimate pollutant discharge rights are also varied. Since 2000, the total allowable SO2 emissions from power plants across the United States have been 8.9 million tons per year, a reduction of 10 million tons compared with 1980.

The international carbon emission trading markets include the European Climate Exchange in Amsterdam, the European Energy Exchange in Germany and the Future Electricity Exchange in France. In addition, Japan, Canada, Russia and Australia also have their own emission trading markets. The Chicago Climate Change Exchange is the first domestic climate exchange in the world. In 2006 exchange through carbon trading volume reached 5.53 tons. The European Climate Exchange accounts for 82% of all carbon trading settled and delivered through exchanges, and all its carbon financing contracts are traded electronically in the London cross-continental futures market. In 2006, global emissions trade reached $28 billion. At present, international emission trading prices are rising, with the European Climate Exchange setting a record of 30 euros per ton in mid-2006.

While China's emissions trading in the last 1989 years, the five environmental management system, to carry out emissions trading system to create a preliminary feasibility. The earliest practice of emission trading in China began in Shanghai. In 1987 the Shanghai pilot total control and licensing system, the implementation of the more than 60 factories along the Huangpu River to transfer the control index of total COD, were more than 30 times the emissions trading.

In 1990 Chinese conducted atmospheric emissions trading pilot work, the initial choice of Taiyuan 16 city as a pilot. China's First Real Sulphur Dioxide Emission Trading

In April 2001, the State Environmental Protection Administration (SEPA) and the American

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Environmental Protection Association (EPA) signed the cooperative project "Research on Promoting the Implementation of China's Total Sulfur Dioxide Emission Control and Emission Trading Policy", and then launched the "4+3+1 Project". Nantong tianshenggang Power Generation Co. Ltd. and Nanjing Acetate Fiber Co. Ltd. of emission trading, this is the first case of sulfur dioxide emissions trading Chinese on real significance.

The first case of Chinese emission cross regional trading.In 2003, Jiangsu Taicang Port Environmental Protection Power Generation Co., Ltd. and Nanjing Xiaguan Power Plant successfully concluded the SO2 emission trading in different places, which set a precedent for China's cross-regional emission trading.

In 2007, China's first emission trading center was built in Jiaxing, Zhejiang Province. The Taihu River Basin in 2008 in the country launched the compensation for the use and emission rights trading pilot. "11th Five-Year" period, a total of 11 provinces of Tianjin, Jiangsu, Zhejiang, Chongqing, Hubei, Hunan, Inner Mongolia and Guangzhou (autonomous regions and municipalities directly under the central government) is listed as the national compensation for the use and emission rights trading pilot provinces.

1.2 Most of the emission trading markets are primary market

Table 1. Emission trading in 12 pilot provinces and municipalities in 2018

Provence	Market	Transaction method	Transaction amount (billion)
Zhejiang	primary market & secondary market	Bidding price & Negotiated price	108
Tianjin	primary market	Auction	-
Jiangsu	primary market	Bidding price	4.23
Hubei	primary market & secondary market	Negotiated price & Auction	1.8
Hunan	primary market & secondary market	Bidding price & Negotiated price	2.31
Neimenggu	primary market	Bidding price	2.47
Shanxi	primary market & secondary market	Bidding price & Negotiated price	2.6.1
Chongqin	primary market & secondary market	Bidding price & Negotiated price	1.24
Shanxi	primary market	Bidding price & Negotiated price	11.18
Hebei	primary market	Auction	2.3
Henan	primary market	Bidding price	-
Qingdao	primary market	-	-

Current emission trading is usually divided into primary and secondary markets. The former is conducted between the government and enterprises, such as initial allocation of emission rights, government repurchase, etc. The latter is the quota trading among enterprises, while the latter is the core content of emission trading. It can play a sewage control in the total emissions on the improvement of the ecological environment.

The emission trading situation of the pilot provinces and municipalities can be approved by 12 provinces and municipalities in 2018. There is only one primary market in seven provinces and municipalities. They are Tianjin, Jiangsu, Inner Mongolia, Shaanxi, Hebei, Henan and Qingdao. Only 50% of the seven provinces and municipalities use open auction or bidding. Can be seen from the vitality of the market degree is not high.

Local governments have "excessive interference" in emission trading.

1.3 Local governments have "excessive interference" in emission trading

The government is considering the development of the local economy, the enterprises in the region of emission trading provided more constraints, such as only in the local area, the government

transaction price control. For example, the guideline price of sulfur dioxide emission right in Shanxi is 18,000 yuan/ton, and the pollutant discharge index is valid for a long time, while that in Chongqing is valid for one year, and the price is about 1,000 yuan/ton.

2. Relevant countermeasures to promote the trading of emission rights of atmospheric pollutants in China

2.1 To strengthen the legal system to support the implementation of the system

To strengthen the legal system to support the implementation of the system. As an important attempt of environmental policy reform, paid use and trade of pollutant discharge rights strengthens the legal system of pollutant discharge rights trading mechanism, provides a strong legal supply for the implementation of pollutant discharge rights policy, and ensures the standardization of the whole process of pollutant discharge rights trading. The national level should be the introduction of supporting laws and regulations on emissions trading system as soon as possible to strengthen the legal supply capacity of emission rights policy.

At present, the legislation of emission trading in Yunnan Province is in a blank state. It is suggested that the legal system of emission trading be established in depth and breadth. On the one hand, to establish a comprehensive and complete emission trading legal system and guarantee system; on the other hand, the pilot should also be comprehensive and unified to the provincial level have clear policies and regulations, so as to ensure that emissions trading parties enjoy fair competition and equal rights of freedom.

2.2 Activating the Secondary Market and Perfecting the Market Mechanism

At present, the secondary market of domestic emission trading has not been activated, and the allocation effect of improving environmental capacity resources by emission trading has not been realized. In order to establish a well-functioning secondary market for emission trading, it is suggested that the following work should be done well:

(1) To clarify the main targets and functions of the secondary market policy;

(2) Establishing a price mechanism of emission trading rights, which is dominated by market self-regulation and supplemented by government guidance;

(3) Regulate the trading system to ensure the orderly trading of emission rights; (4) Establish a platform for emission trading, and do a good job in monitoring the work of emission trading;

(5) Actively explore cross-regional emissions trading;

(6) Establish relevant legal systems to eliminate illegal and unequal trading in the process of emission trading;

(7) Formulating relevant supporting positive fiscal and taxation policies to maximize the role of environmental resource allocation on the basis of maximizing market participants ‘own interests.

Through these measures, we can ensure that the secondary market of emission permits can be normally traded, and realize the real activation of the emission permits trading market, with less intervention from local governments.

2.3 Strengthen the Supervision of Emission Trading

The administrative agencies of emission trading should strengthen the supervision of emission trading, verify whether the surplus emission rights are true, prevent enterprises from cheating, stop the abuse of transfer rights and illegal transfer of emission rights in a timely manner, and standardize some disorderly phenomena that may occur in the transfer process to promote environmental protection. In order to supervise the trading of indicators, a tracking system should also be established. One is to establish an index tracking system for recording index transactions, and the other is to establish an emission tracking system for collecting and confirming emission data, so as to facilitate the accounting of enterprise indicators and ensure the authenticity and consistency of enterprise emission reduction and transactions. Illegal acts such as false declaration materials, violation of

trading procedures, excessive discharge of pollutants and illegal discharge in emission trading can be severely punished according to the circumstances, and punishments such as ordering corrections and paying fines can be imposed. If the circumstances are not serious, the Ministry of Environmental Protection can control the issuance of the next pollutant discharge permit and punish it.

3. Summary

From the above analysis, it can be concluded that emissions trading in China started late, secondary market transactions were inactive, and some local governments intervened in market prices. However, the government has a strong determination to continue to implement emission trading.

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