

中国社会科学院研究生 博士学位论文

排污权交易的可持续发展潜力分析

——以中国电力工业 SO₂ 排污权交易为例

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内 容 提 要

环境能否可持续保护和资源能否可持续利用是关系到人类社会能否可持续发展的两大重要问题。为了保护环境和有效利用资源,全世界许多国家对排污权交易机制进行了多方面的探索、研究和实践。本文在总结部分国家排污权交易实践经验的基础上,运用可持续发展理论观点,采用新制度经济学分析方法,结合中国电力工业二氧化硫污染物排放的实际事例,对排污权交易的可持续发展潜力进行了较为深入地分析和研究。本文的主要内容包括:

1、以新制度经济学的产权理论和交易理论为分析工具,对建立排污权交易机制的理论基础及其意义进行了理论分析。论述了排污权交易机制中“有效的产权安排具有避免经济外部性的理论潜力”、“市场交易为资源有效率的流动提供了激励”等重要观点。

2、对部分国家进行排污权交易的重要实践和相关经验进行了总结和分析。重点对美国的排污权交易实践的发展过程、实践效果、经验与教训等进行了认真地探析。并通过对美国、日本等相关情况的对比分析,提出了中国实现二氧化硫达标排放的思路。

3、从可持续发展理论观点出发,对排污权交易的可持续发展潜力进行了分析,对建立排污权交易可持续发展潜力的评价方法和体系等提出了探索性意见。

4、根据国际经验和排污权交易机制的理论潜力,提出了建立中国电力工业 SO₂ 排污权交易市场的意见。对建立市场的必要性和可行性进行了较全面的分析,对该市场的有效创建提出了相关应用模型。

5、以中国电力工业二氧化硫污染物排放控制为例,验证和说明了前述的理论逻辑和相关观点。

本文在四个方面提出了创新性意见:一是提出了排污权交易的可持续发展潜力的概念并对其进行了具有探索性地分析和界定,提出了对排污权交易的可持续发展潜力进行评价的概念框架和基本方法。二是结合排污权交易的可持续发展潜力分析,系统地分析了中国电力工业建立二氧化硫排污权交易市场的必要性和可行性,积极提出了建立中国电力工业二氧化硫排污权交易市场的主张。三是针对中国燃煤发电企业二氧化硫排污权交易市场的建立提出了相关模型,并进行了定量计算与解析。四是运用可持续发展理论观点和经济学方法,对中国电力工业二氧化硫排污权交易机制的可持续发展潜力,进行了实例分析和逻辑验证。经分析证明,排污权交易机制不仅适宜于中国,而且在成本效率、环境有效性和社会公正公平性等多个方面具有相当积极的理论潜力。

关键词: 排污权交易 可持续发展潜力 中国电力工业 二氧化硫

Abstract

Environmentally sustainable development and sustainable use of natural resources are the two of the biggest challenges that influence the sustainable development of our humankind. In order to protect the environment and the natural resources efficiently, many countries have undertaken research programs focusing on market approaches such as emission trading scheme. Based on both the emission trading experiences and lessons of some countries and the examples of the sulfur dioxide (SO₂) emission in the Power Industry of China, this paper employs the theory of sustainable development and the new institutional economics to attempt an in-depth analysis on sustainable development potentials of the emission trading scheme. Major analyses in this dissertation are made to.

1. Use the Property Right Theory and the Trading Theory of the New Institutional Economics as the tools to analyze the theoretical basis and the great importance of the establishment of Emission Trading Scheme. Some important opinions are proposed: (1) the Effective Property Right Arrangement has the Theoretical Potential to lessen the Externalities impact and (2) The Marketable Trading Stimulates the Efficient Flow of Natural Resources; etc.

2. Summarize and analyze the relevant Emission Trading experience and lessons in some countries. It especially focuses on the Emission Trading practice, and its development, consequences and experience and lessons in USA. It also compares the relevant practice in USA and Japan, and proposes the solutions for the SO₂ Emission in China.

3. Based on the theory of Sustainable Development, analyze the Sustainable Development Potential of the Emission Trading, propose some exploring idea to establish the Evaluation system of the Sustainable Development Potential of Emission Trading.

4. Based on the international experience and the theoretical potential of Emission Trading, propose the methods and solutions to set up the SO₂ Emission Trading Scheme of China's Power Industry. It also analyzes the necessity and feasibility and proposes some models to set up the trading scheme.

5. Use some SO₂ Emission Control cases in China's Power Industry to verify the correctness of my aforementioned theories and views.

Major findings in the analysis include the following four aspects: Firstly, it proposes the concept of the Sustainable Development Potential of Emission Trading, and systematically analyzes and defines the Emission Trading; it also proposes the concept and basic methods to evaluate the Sustainable Development Potential of Emission Trading. Secondly, combined with the Analysis of the Sustainable Development Potential of Emission Trading, this paper analyzes the necessity and feasibility to establish the SO₂ Emission Trading Scheme of China's Power Industry. Thirdly, a quantitative model has been constructed for the SO₂ Emission Trading Scheme of China's Power Industry, elements of the model including "Relatively Efficient Emission Rights Allocating", "Emission Rights Pricing", and "Emission Rights Market". Fourthly, using the Theory of Sustainable Development and Economics, empirical analysis is made to understand the potentials of the Sustainable Development by using SO₂ Emission Trading Scheme of China's Power Industry. And the results indicate that not only does the Emission Trading Scheme be applicable in China, but also it has a great potential in several aspects such as the cost effectiveness, environmental sustainability and social fairness.

Key Word: Emission Trading Sustainable Development Potential China's Power Industry
Sulfur Dioxide

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