

# Research on the Impact of Carbon Emission Trading on the Innovation of Energy Enterprises — Comparative Analysis of Two Types of Energy Enterprises

**Ruisi Jia**\*

School of Economics and Management, China University of Petroleum (East China), Qingdao, China

## **Email address:**

762310630@qq.com (Ruisi Jia)

\*Corresponding author

## **Abstract**

In September 2020, China put forward the goals of "carbon peaking" by 2030 and "carbon neutrality" by 2060. As an important means of regulating carbon emission reduction, carbon emission trading system has increasingly attracted the attention of Chinese enterprises. Based on the carbon trading data of Guangdong carbon trading market from 2014 to 2022, this paper constructs a regression model to test the impact of carbon emission trading on innovation of traditional energy enterprises and new energy enterprises respectively, and it further studies the intermediary effect of corporate cash flow and the regulatory role of government subsidies, and finally analyzes the threshold effect of carbon trading price. The empirical results show that carbon emission trading is positively correlated with the innovation of the two types of energy enterprises, that is, the higher the price of carbon trading, the larger the scale of carbon trading, and the higher the activity of carbon trading, the more it can promote the innovation of energy enterprises, and this promotion effect is heterogeneous in the two types of enterprises. Through further analysis, corporate cash flow plays an intermediary effect in the process of carbon trading price affecting the innovation of the two types of energy enterprises, while government subsidies can play a positive regulatory role in the above process, and this regulatory role is stronger in traditional energy enterprises. There is a threshold effect in the impact of carbon trading price on the innovation of energy enterprises. When the carbon price reaches a certain level, it is more conducive to the play of innovation effectiveness. Therefore, it is possible to stimulate the vitality of the carbon trading market by improving the carbon emission trading mechanism and rationally controlling the carbon price, so as to expand the enterprise innovation effect of the carbon emission trading. Moreover, it is necessary for the government to provide differentiated policies for the two types of energy enterprises to promote the enterprises to complete the emission reduction task. At the same time, traditional energy enterprises need to pay attention to low-carbon innovation, accelerate enterprise optimization and transformation, and new energy enterprises should seize the "double carbon" opportunity to achieve high-quality green and healthy development.

## **Keywords**

Carbon Emissions Trading, Enterprise Innovation, Traditional Energy Enterprise, New Energy Enterprise