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CONSIDERING PRICE COMPETITION IN ENTERPRISE DECISIONS UNDER A LOW CARBON ECONOMY BACKGROUND

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Abstract

Based on the carbon dioxide emission-dependent market represented by the traditional energy, electricity, petroleum and chemical industries, this paper studies the optimal price and competitive decision in the duopoly competition market under the constraints of three carbon emission reduction policies: carbon cap, carbon cap-and-trade and carbon tax, and verifies the relevant conclusions through numerical analysis. The results show that because of the competition between the two oligarchic markets, enterprises require a greater capacity to reduce the market price of products and gain a competitive advantage and that for the government, when the carbon cap is set and the market competition is not fierce, allowing the internal trading of carbon emission rights will create the highest profits for suppliers, consumers and society as a whole. From the perspective of energy saving and emission reduction, carbon tax policy is more conducive to encouraging suppliers to use low carbon technology.

Keywords: carbon cap; carbon cap-and-trade; carbon tax; enterprise decision, price competition

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