

Research on the Impact of Green Finance on China Provincial Energy Security under the Carbon Peaking and Carbon Neutrality Goals

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Abstract

In the 14th Five-Year Plan and the outline of the long-term goal in 2035, it is proposed to implement the strategy of energy and resources security, enhance the ability of sustainable and stable energy supply and risk management and control, coordinate energy development and security, and further promote the clean and low-carbon transformation of energy. As an important contribution to low-carbon energy development, green finance provides investment, financing and other financial services for low-carbon energy transformation, and is committed to solving the balance between energy supply, energy economy and environmental protection. This paper constructs the development level of green finance and indicator system of energy security, calculates the level of 30 provincial administrative regions in China from 2010 to 2021 by entropy method, deeply studies the influence of green finance development in different regions on China's energy security, reveals their relationship and mechanism, and studies the role of green finance on energy security from the perspective of energy structure and energy efficiency. The following conclusions are drawn: First, promoting the development of green finance is helpful to the improvement of regional energy security; Second, green finance can improve energy security by improving energy efficiency and optimizing energy structure; Third, the effects of different regions are different. Among them, the development of green finance in the central and western regions plays a more significant role in promoting energy security, while the role in the northeast region is not obvious. It is necessary to further strengthen the development of green finance. Finally, some suggestions are put forward on how to give full play to the positive role of green finance in energy security to ensure energy security under energy transformation.

Keywords

Energy Security, Green Financial Development, Energy Efficiency, Energy Structure