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學術論文

題目：A new structural analysis framework of energy consumption in China

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論文摘要：

This paper introduces a three-dimensional structural analysis framework designed to identify key sectors, paths, and factors influencing energy consumption in China comprehensively. A notable innovation of this study is the development of a modified structural path betweenness approach that improves measurement accuracy by addressing the issue of repetitive calculations found in previous methodologies. The findings indicate that this refined method significantly mitigates the overestimation issue inherent in assessing the importance of intermediary sectors. Specifically, the Manufacture of Metal emerges as considerably more critical when functioning as an intermediary sector than as a participant in supply or demand sectors. Additionally, the study identifies crucial intermediary sectors where enhancing product utilization efficiency could yield substantial energy savings. Finally, alterations in energy consumption elasticity have appreciably narrowed the decline in China's energy consumption growth rate. Policymakers need to consolidate existing environmental achievements and incorporate energy consumption from both demand and intermediary sectors into the regulatory framework.

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