

## **Applying Multi-Regional Input-Output Analysis to Evaluate the Impact of Indirect Energy Consumption on Energy Security**

Topic: 514Y Energy IO Modelling (1)

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There has been increasing attention being paid to the issue of energy security in recent years. In order to assess the energy security situation, many indicators are developed toward to a more complex and multi-dimensional way. However, most indicators involved energy consumption ignores the indirect effect from international trade. Consequently, this paper intends to assess major Eastern Asia countries energy security by combining the Multi-Regional Input-Output analysis and energy security indicator system to consider the indirect energy consumption effect based on the World Input-Output Database. The result shows that the foreign energy embodied in traded goods could affect energy security and serves as an important insight for the government agency in charge of relevant energy policy.