

## Shifting to a just energy transition: The case of the regional coal energy system in the south of the state of Santa Catarina

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### Introdução

The economy of the south of Brazil, especially of the southern part of the State of Santa Catarina, has an important carbon chemical complex and is strongly impacted by the production of mineral coal. Abruptly ending production and consumption based on the coal economy would impact the daily life, culture, work, and income of the region's thousands of inhabitants, directly or indirectly. The federal government and the government of the state of Santa Catarina, are concerned with the conduct of the energy transition.

### Problema de Pesquisa e Objetivo

The research question is How the state policy of just energy transition can contribute toward a low carbon economy in the south of the state of Santa Catarina from the perspective of regional innovation systems approach compared with news vehicles? This paper aims to analyze the state policy of just energy transition to a low carbon economy in the south of the state of Santa Catarina from the perspective of regional innovation systems, considering national and state Acts.

### Fundamentação Teórica

The theoretical framework addresses energy transitions in the global south and regional innovation systems. Transition processes are permeated by uncertainties. Due to social inequalities and geographic differences, it is necessary to consider that the transition goes far beyond energy itself. It involves sets of interests of different actors, with values and legitimate visions that need to be observed in the process. The notion of regional innovation systems is understood as a set of related public and private interests that lead to the generation e dissemination of knowledge.

### Metodologia

The investigative strategy is a documentary case study of a qualitative nature, focusing on the southern region of the State of Santa Catarina, in southern Brazil. Secondary data were collected from official reports, current legislation, and news published in the mass media on the subject. Afterward, the documents were sorted, and a content analysis was carried out to organize and identify categories of analysis in the light of regional innovation systems. The documents identified come from several sources.

### Análise dos Resultados

The results provide an overview of the coal situation in the South of the State of Santa Catarina, and demonstrate the general idea of the fair energy transition policy for the State, the South of the State as a locus of innovation and a transition guided by public policy within a regional innovation system. Coal exploration in Brazil began at the end of the 19th century. Abruptly ending production and consumption based on the coal economy would impact the daily life, culture, work, and income of the region's thousands of inhabitants, directly or indirectly. Presents the RIS elements.

### Conclusão

The set of institutions whose interactions determine the innovative performance of companies and local society can be recognized as a regional innovation system. It appears that, despite the controversial alternative chosen by the legislator, there are elements indicative of an economic and environmental tradeoff of great importance in the region. Abrupt suppression of the coal industry would potentially harm workers. There is a lack of robust statistical elements to allow the interruption of the operation of coal-fired thermal plants in the region.

### Referências Bibliográficas

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### Palavras Chave

Just Energy Transitions , Regional Innovation Systems, Public Policy

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