



08, 09, 10 e 11 de novembro de 2022
ISSN 2177-3866

The Embeddedness of Actors in a Multilevel Perspective: A case study of the Brazilian Energy Transition

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Introdução

Energy, among the components of the infrastructure, is perhaps the one with the greatest range of interactions and environmental impacts. Part of the energy industry is the electric energy market or electricity sector. Electricity is today in most people's daily activities. The electrification of services and the digitization of human relationships make us increasingly dependent on energy. Different transition paths may coexist. In order to analyze the role of actors and accommodate consumption, cultural, and sociopolitical dimensions, the multilevel perspective framework (MLP).

Problema de Pesquisa e Objetivo

Brazil stands out on the world stage using three times more renewable sources than the average. The analysis of the sociopolitical interactions provides a better understanding of the role of these actors in the transition paths. The guiding question that arises is: What are the main disruptive actors to foster the energy transition process in Brazil? This paper aims to contextualize how actors involved in the process of energy transition in the Brazilian electricity sector relate in a multilevel perspective (MLP).

Fundamentação Teórica

The Actor-Network Theory can help to define and coordinate functions within a social structure comprising both social and natural. Actors or actants are anything that can act or change the actions of another through associations that change the state of things. The past and the present matter to define the actors. Stakeholder Theory offers tools to prioritize the interests that will be decisive for promoting an energy transition. Our theoretical background approaches the two theories to address the actors in energy transitions. The MLP can help to visualize actors in the field.

Metodologia

A documental case study was performed. In documentary research, the source of data collection is restricted to documents, written or not, constituting what is called secondary sources. Literature was the starting point for the analysis, as it would not be possible to find the problems to be faced in the field without a preliminary reading. Content analysis is used to enrich an exploratory analysis and obtain quick notions about a text, identifying key ideas and helping qualitative analysis. The history and description of current policies are important to understand the analyzed documents.

Análise dos Resultados

Results present a brief history and prospect of electricity industry in Brazil. Also, presents actants of the Brazilian Electricity Sector in a Multilevel Perspective. Brazil, unlike other countries, has a multiplicity of energy resources at its disposal and needs to manage in the best way to promote energy efficiency. The electricity market in Brazil is highly regulated, with different institutional agents, which can make changes difficult due to, sometimes, non-economic barriers.

Conclusão

Despite criticisms about its simplicity and adequacy to contexts other than the one in which it theoretically emerged; we consider MLP to be a very useful framework for the study in question. Three major categories emerged from the case study: (i) institutional actors - among which are government actors, (ii) Civil Society and financial agents, and (iii) technological & environmental actors. From the analysis of the Brazilian scenario, we sense that the three possible groups of actors

coexist at the multiple levels of the MLP, exchanging views and influencing each other.

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