



Must Nuclear Energy be Increased on Brazilian Energy Mix in a post-COVID-19 World?

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Abstract

This paper aims to discuss the convenience and feasibility of increasing the nuclear energy participation on the Brazilian energy mix, amid a national context of climate change, scarcity of natural resources necessary to baseload energy generation, particularly hydropower, discussions on a possible restart and expansion of Brazilian nuclear program, whilst the population still suffers socioeconomic impacts resulting from COVID-19 pandemic as well as the pre-pandemic economic crisis. The work proposes four analysis axes: environmental factors, economic, safety/legislation and technological aspects, and through bibliographic research in scientific articles published in journals, theses, dissertations, laws, regulations and international recommendations, it was possible, as a result of the research, to draw an overview of a possible future expansion of the Brazilian nuclear program and list advantages and challenges of using the nuclear alternative when compared to other energy sources.