

## Projection of Solar Radiation for the Extreme South of Brazil

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**Abstract :** This work aims to validate and make the projections of solar energy for the Brazilian period from 2025 to 2100. As the plants designed by the HadGEM2-AO (Global Hadley Model 2 - Atmosphere) General Circulation Model UK Met Office Hadley Center, belonging to Phase 5 of the Intercomparison of Coupled Models (CMIP5). The simulation results of the model are compared with monthly data from 2006 to 2013, measured by a network of meteorological sections of the National Institute of Meteorology (INMET). The performance of HadGEM2-AO is evaluated by the efficiency coefficient (CEF) and bias. The results are shown in the table of maps and maps. HadGEM2-AO, in the most pessimistic scenario, RCP 8.5 had a very good accuracy, presenting efficiency coefficients between 0.94 and 0.98, the perfect setting being Solar radiation, which indicates a horizontal trend, is a climatic alternative for some regions of the Brazilian scenario, especially in spring.

**Keywords :** climate change, projections, solar radiation, scenarios climate change

**Conference Title :** ICPST 2020 : International Conference on Photovoltaic Systems and Technologies

**Conference Location :** Helsinki, Finland

**Conference Dates :** July 17-18, 2020