

Financial Viability in Renewable Energy Projects in Australia using the Mathematical Algorithm of the Monte Carlo Simulator

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Australia has a developed economy and free energy market that has driven the entry of unconventional generators to the electricity generation network. Policies such as the Green House Gases (GHG), the carbon tax and specific renewable energy targets (RET) have been fundamental steps in this transition. However, when it comes to implementing these types of change projects, it is essential to analyze some financial aspects that justify the initial investments that merit realization.

This work seeks to review the economic and financial viability of the power generators of the Clemente Wind Farm and the Solar Center of the University of Queensland in Australia using the mathematical algorithms of the Monte Carlo Simulator which uses more than 4000 possible scenarios of random samples And a probabilistic view for decision making, which is based on the Capital Asset Pricing Model (CAPM), which describes the relationship between systematic risk and expected return or profitability for financial assets, particularly Actions.