

The Cost-Effectiveness of Solar Energy in South Africa

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Abstract

This paper presents solar energy relevance in South Africa's. The research first identifies the available strength of power generation: Concentrating Solar Power (CSP); Photo Voltaic (PV) based on the environmental conditions of the country. The paper discusses the particular options of these resources in the remote and rural regions — the cost-effective generation of electricity using solar compared to existing electricity power tariff, which is mainly based standard grip. The research simulates some cost benefits studies conducted on the PV based solar power and wind power generation and its utilization as independent power producers. A non-experimental research method, qualitative approach, descriptive design was used in this research. This paper justifies cost-effectiveness and feasibility of green energies based on factors like location, size, management, selection and the operation of plants. The research limitations include the sample size and the qualitative research approach. The researcher recommends continued support of public incentives for green energy education and technology especially by soliciting the involvement of nonprofit organizations.

Keywords:

Environmental, sustainable, renewable energy, affordable housing, green building, solar, nonprofit