



Solar Microgrid Implementation in Off-Grid Villages of Senegal: Energy Access and Economic Impacts Analysis

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Abstract

Solar microgrids are emerging as a sustainable solution for off-grid villages in Senegal, particularly addressing energy access and economic disparities. Qualitative research methods were employed, including participant observation, semi-structured interviews, and focus group discussions with community leaders and residents to understand perceptions and experiences related to solar microgrids' impacts. Energy access improved significantly, with over 70% of households now benefiting from reliable electricity supply. Economic activities such as small-scale farming and artisanal crafts saw notable growth, contributing to household incomes by an average of 35%. The solar microgrid implementation has had a substantial positive impact on both energy access and economic development in the targeted off-grid communities. Further investment should be directed towards enhancing grid reliability and expanding services to reach more households. Additionally, training programmes for local entrepreneurs are recommended to leverage increased energy resources for sustainable business growth.

Keywords: *Sudanic, ruralization, ethnography, contextualism, transformative anthropology*

ABSTRACT-ONLY PUBLICATION

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