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Productive Use for Rural Electrification:
The Impacts of the Single Key Consumer Approach on the Net Social Benefit
Components

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ABSTRACT

This study deals with the implementation challenges of the single key consumer productive use approach to rural electrification (RE). It aims to verify if the approach can be reproduced to other areas of Mozambique and applied for different industries. The general objective is to test the hypothesis that existing productive capacity through a single key consumer is an efficient approach for selection of areas to be electrified. Whether the efficiency in the utilization of the approach relates to the increase in access rates of electricity or to the short-term returns to investment from the improved performance of the key consumer, the hypothesis did not hold. Screening in Cabo Delgado Province, Mozambique suggests little possibility of the criteria implementation to improve coverage rates, given the small number of potential and existing large consumers of electricity in the rural areas. Case study in Chiúre District has later shown that even if a key consumer has the ability to improve its productive capacity through access to electricity, the improved productivity might not materialize, as it also depends on private decision making and on the industry sector. The study concludes that single key consumer approach might overestimate the net social benefit value of the electrification project at the time of the decision making when compared to its actual values.

Key-words: Rural Electrification; Cost-Benefit Analysis; Productive Uses