



Regional Power Pools in Central African Republic: Enhancing Energy Security through Comparative Analysis

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Abstract

Central African Republic (CAR) faces significant challenges in securing reliable energy supply, with frequent power outages and limited grid infrastructure. A comparative analysis was conducted using literature review and expert interviews to assess current power pool structures and propose enhancements. Regional power pools have demonstrated effectiveness in improving grid stability, but their implementation is hindered by insufficient financing mechanisms and regulatory frameworks in CAR. While existing regional models show promise, tailored policy adjustments are necessary for successful integration into CAR's energy landscape. CAR should prioritise developing robust financing schemes and harmonizing regulations to support the establishment of a viable regional power pool model. Central African Republic, Energy Security, Regional Power Pools, Policy Framework The empirical specification follows $Y = \beta_{0+\beta}^{-} p X + \text{varepsilon}$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: *Sub-Saharan, African, Pooled, Facilities, Energy, Security, Interconnectedness*

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