

Meta-Analysis of Electricity Pricing in West Africa

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Abstract:

A meta-analysis is undertaken to ascertain how prices are integrating in West African electricity markets. It examines the extent West African Power Pool (WAPP) contributes to power price interactions within ECOWAS. Unit electricity prices to end-users, in US cents/kWh, for fourteen (14) countries in the WAPP are obtained by reviewing existing literature. Electricity price data in different countries are collated from 2010 to 2017 and analyzed for variation over time. It is found that end-users pay varying prices for power in different countries depending on their access and nearness to the source of electricity. The exercise reveals that the WAPP, though laudable, is yet to have a significant effect on electricity pricing within the sub-region. This is due to financing and price risks, as well as, regulatory and policy challenges - affordability and cost recovery. However, bilateral agreements between certain countries have helped to ease electricity trading within the region.

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I. Introduction

Studies abound on the need for improvement in West Africa's regional infrastructural integration. Such infrastructure include; communication, transportation and energy [1], [2]. While tremendous efforts have been expended in the area of communication and transportation integration within the West African sub-region, with visible results in this regards, that of the energy integration is gradually becoming evident [3]. In the past decades, energy experts have emphasized on the enormous, albeit yet to be fully harnessed potential resources for electricity capacity in the sub-Saharan African region. The establishment of the West African Power Pool (WAPP), a regional cooperation of the national electricity companies in West Africa under the auspices of ECOWAS, in the year 1999, aims to integrate different power systems within the region [4].

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